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C O N T E N T S

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U.S. Public Health Service.

FIRST WEEK

WORK OF THE UNITED STATES PUBLIC HEALTH SERVICE

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THE U. S. PUBLIC HEALTH SERVICE AND THE WAR

Thomas Parran, Surgeon General

Reprint from Journal of the American Medical Association
August 14, 1943

The wide range of activities in the U. S. Public Health Service calls for a diversification of medical talent seldom encountered in a single organization. At the present time more than 1,800 physicians are employed full time in the Public Health Service. Almost as many hold commissions in the inactive reserve or are serving part time or on a consultant basis.

The legal functions of the service cover the three broad divisions of medicine, namely research, clinical practice and public health practice. During the war these activities have been greatly expanded and new tasks have fallen to the lot of Public Health Service physicians. In fact, 90 per cent of our manpower, material and money have been channeled into direct war work. Virtually all of the research has been turned to new problems arising from the conditions of global war. Many confidential studies have been undertaken at the request of other branches of the government. Tropical medicine, industrial toxicology, aviation medicine and nutrition have captured the interest of our physicians in the research arm of the service. The production of vaccines, blood plasma and other biologic products has expanded greatly.

In our hospitals nearly 80 per cent of the patients are members of the Merchant Marine, the Coast Guard, the Army and the Navy. The Public Health Service furnishes medical care for the entire personnel of the Coast Guard in the same way in which the Navy Medical Corps provides medical care for the personnel of the Navy. Coast Guard patients treated in our hospitals have more than doubled since Pearl Harbor. Medical care is now extended by law to the families of coast guardsmen.

An increasing number of women and children are applying for admission to the marine hospitals, principally dependents of coast guardsmen. The addition of this valuable experience has made possible the development of clinical research in our hospitals, and with dramatic results. In 1942, a method for relieving the pain of childbirth was developed by Drs. Hingson and Edwards, two of our young officers at the Marine Hospital, Stapleton, N.Y. Leaders in the medical profession consider this an outstanding contribution. Possibilities exist for the use of continuous caudal analgesia in surgical fields and are being explored. The originators of the method have demonstrated at a number of medical schools.

In our cooperative program with the War Shipping Administration for medical care of trainees and members of the Merchant Marine we have expanded psychiatric work in the Public Health Service. Already an important field in our hospitals for the treatment of narcotic drug addicts, in the medical and psychiatric service of federal prisons and in St. Elizabeths Hospital, psychiatry is now being turned to the prevention and treatment of psychic effects of enemy attacks on merchant seamen.

Public Health Service physicians are now on duty in practically every theater of war. Many are seeing actual combat as medical officers of the Coast Guard cutters. Others have been assigned to the Army in India and in the Southwest Pacific under the command of Generals Stilwell and MacArthur.

Another group of young physicians is doing a superb job under exceedingly arduous conditions. They are responsible for the medical care of 20,000 men who are constructing the Alaska Highway. Their patients are dispersed over a distance of 1,500 miles of virgin territory. As the highway has progressed northward they have had to move hospital supplies and equipment over great distances with inadequate transportation and in subarctic weather.

Other medical officers are serving with the United States Typhus Commission in Africa, with the Army in Panama in connection with venereal disease work and in Trinidad as members of the Anglo-American Commission.

Four of our doctors are in the first health expeditionary force to enter a foreign country after the reoccupation of Axis held territory. Assigned to the Office of Foreign Relief and Rehabilitation, they are in Africa and are working with local public health authorities and physicians to assure adequate medical supplies, allot food to combat widespread nutritional diseases among the native population and to improve native sanitation, malaria and typhus control for the protection of American troops in the area. The Office of Foreign Relief and Rehabilitation has requested the service to undertake the recruitment and training of the medical and sanitary personnel who will be needed as this important work expands to other war areas.

At the request of the Army a number of additional officers have attended the course in military government at the University of Virginia, and those who have completed the training are now on active duty.

For now and for the future, I would recommend to the medical student that he devote as much time and effort as possible to the study of public health methods and administrative medicine. In the past there has been scant attention to these subjects in our undergraduate schools. Yet their importance both in this country and in our international relationships is apparent. The day is rapidly passing when the training of public health physicians by the trial and error method of "experience" will suffice. Already postgraduate training in public health is being required of young physicians who have no compensating experience as a qualification for employment in state and local agencies.

The emergency made it necessary for the Public Health Service to recruit hundreds of physicians for assignment to public health positions in the states. To compensate, at least in some degree, for deficiencies in public health training, as well as to inculcate new employees in the policies and procedures of the Public Health Service, an orientation course was developed. Recruits were assigned to the course for the first six weeks of their employment. Lectures by experts in various fields, seminars, problem solving, and field practice under supervision of a state health department were the methods utilized in the intensive training of physicians, many of whom were soon to be "on their own" in war communities which had never had a public health service before.

Within the total field of public health practice, two other specialties are expanding with amazing speed under the pressure of war. These are in-

dustrial hygiene and nutrition.

In 1942 the chairman of the Council on Industrial Health of the American Medical Association stated that teaching in this field is inadequate in most of our medical schools. He pointed out that, ironically enough, the Woman's Medical College of Pennsylvania devotes more time to the subject than any other school. Medical students and interns should certainly obtain a sufficient grounding in industrial medicine to recognize the possibilities in the field.

The United Nations Conference on Food and Agriculture, held at Hot Springs, Va., May 18 to June 8, 1943, placed an important responsibility on public health and medicine in seeking the national and worldwide goal of better nutrition. The conference recognized that at all stages of a nutrition program, from the recognition of malnutrition in a community to its elimination, knowledge of the human body is essential. Because they possess and can contribute this knowledge, physicians have a primary responsibility in the development and application of a nutrition policy. The medical student can look forward to making an even more significant contribution through the study of human nutrition. Modern nutrition--already one of the scientific miracles of our times--is a dynamic science on the threshold of fresh discoveries. It offers the student a rich field for exploration and practice.

In the past, war with all its destruction has been a catalyzer in the progress of medicine, surgery, and public health. Already important changes are being reported in military medicine. On the public health front, advances are being made. We are gaining new knowledge, devising new methods and new approaches. Our attacks on malaria, tuberculosis and venereal diseases have been sharpened by the development of new weapons. Today, in the protection of our armed forces and the civilian population, and tomorrow, in the reconstruction to peace, the public health physician is an essential man whose knowledge and skill serve his country through constructive teamwork with the military surgeon and the private practitioner.

Abstract of and Excerpts from Lecture on

COMMISSIONED CORPS, U.S.P.H.S.

by

Warren F. Draper, Assistant to the Surgeon General

Many of you who are attending these orientation courses have questions about the Service, the uniforms, relations with the military forces, opportunities in public work in the future, after the war is over.

I cannot answer all your questions nor predict what the future will hold but perhaps by outlining certain trends which are discernible, I can assist a little in this orienting process.

At this time we are getting ready to assist in the rehabilitation program in Europe after the war. In fact, three of our officers are now in Africa, endeavoring to find out how we can best assist, what the most pressing medical and sanitation problems are. We are detailing three or four medical and engineering officers to attend each eight-week training course, held by the Army at Charlottesville, Virginia, to train officers to participate in administrative work in occupied countries, as the military forces of the United Nations move in, and take over the reins of government. The Public Health Service is definitely planning to assist in the rehabilitation program in Europe. We are the only country with trained personnel, medical supplies and resources to assist in the public health field, for the resources in Europe are becoming very low.

Not only is the rehabilitation job in all parts of the world great, but there has been a definite broadening of medicine and allied fields, so that I think we may say that for some time after the war no public health officers, sanitary engineer or sanitarian, public health nurse or laboratory worker will lack for something to do. More than that public opinion is such that it will now support a broader public health program. When our medical officers return to America, we should have a plan worked out so that they can be effectively used. We shall have many people seeking employment. It is likely that a broad public works program will be undertaken and perhaps the needed facilities for diagnostic work and for hospitals may be built in this program. My experience in dealing with young medical officers about to enter the Public Health Service has convinced me that the talents of the young physicians are not employed to the best advantage under the present system. Perhaps the hospital facilities so badly needed in rural America can be provided with Federal assistance and the medical men utilized more fully by a program which the medical men will work out themselves to give services to the medically needy - not on a charity basis, but on a sound basis in which perhaps the Federal Government may participate. It is imperative that medical services be provided for rural America.

There are many problems upon which the doctors can work, including T. B., cancer, etc. We have made progress on the preventable diseases of the younger groups of our citizens, but done very little in extending life expectancy for the persons of 45 years of age or older.

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A word about the Service and its relation to the armed forces. We are not in the military service but legislation toward this end is now being considered. 438 officers, approximately one-fourth of the Corps, are now assigned to work with the armed forces in some capacity. The Army is engaged full time with military matters and depends upon the Public Health Service to develop relationships in civilian health activities. We have Liaison Officers established in Service Command Headquarters who understand the needs of the military forces. Also the work we do in research that is of direct importance to the armed forces.

We wear the uniforms similar to those of the Army and Navy, except for the Corps device. The compensation and rank of Commissioned Officers are along the same lines as the Medical Corps of the Army and Navy. The President determines the uniforms for the U. S. Public Health Service as for the Army and Navy. Our Corps of 1600 regular and reserve officers is too small for a distinctive uniform of its own and it is preferable to have it blend with those of the Army and Navy, since our officers are constantly working with them.

It appears to me that the public health field is undergoing constant extension and one thing seems certain in the future that medicine and the allied fields of medicine as they broaden will offer more opportunities for medical people and those associated in the field of medicine.

Abstract of and Excerpts from Lecture on

PURPOSE-SCOPE OF THE U.S. PUBLIC HEALTH SERVICE ORIENTATION PROGRAM

1941 - 1943

by

Senior Surgeon M. V. Ziegler, U. S. Public Health Service

The Surgeon General of the U. S. Public Health Service on April 7, 1941, at the request of the Conference of State and Territorial Health Officers inaugurated an "In-Service" training plan to instruct new public health personnel with respect to States Relations policies. During 1941 and 1942, eleven courses attended by over seven hundred persons were carried on for periods of one month each at the National Institute of Health, Bethesda, Maryland. Subsequent field training was given by the States to which these lease-land medical officers, public health nurses, sanitary engineers, and laboratory workers were assigned.

The primary objective of the Orientation program has been to appraise the skills and capacities of these new recruits in the public health field and give them an insight into the rapidly expanding field of medical, sanitation and nursing activities brought about by the war. The headquarters for this intensive course of instruction was established at the National Institute of Health, Bethesda, Maryland. Here well equipped lecture halls, conference rooms, teaching and library facilities were available. The emergency first aid and medical care section of the National Institute of Health cooperated in clinic demonstrations in respect to immunization and vaccination procedures. Laboratories of the Industrial Hygiene Division were utilized in the instruction. The Division of Personnel and Accounts, in addition to the responsibility of recruiting the technical personnel, instructed them concerning Civil Service and Commissioned Corps practices.

Through the cooperation of the Advisory Council made up of representatives of the leading public health colleges of the United States certain outstanding lecturers visited the National Institute of Health each month. Ninety per cent of the instruction was given by the members of the U. S. Public Health Service. Particular emphasis was laid upon the cooperative relationships with State health departments and other federal agencies engaged in war work. Among the Universities cooperating closely were Columbia, Johns Hopkins, Pennsylvania and North Carolina.

The work of the Liaison Officers of the Public Health Service with Army and Navy personnel was made clear. The important role of venereal diseases in war areas was outlined by federal and State health department representatives. Problems, quizzes and individual conferences took up much time in this educational effort. The use of federal funds, granted by the Congress to State and local health departments through the Public Health Service to reduce preventable disease was depicted by all the Assistant Surgeons General. Industrial hygiene practices in the war industries were demonstrated on the screen and in the nearby laboratories.

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Malaria control, water, milk and food sanitation practices received a substantial proportion of the student's time.

The procedure was established of assigning each doctor, nurse or engineer to one of the nine District offices, then to the State containing the war area in which he was to work, and generally two weeks of field training was given in the State or local health department.

The 808 persons who attended thirteen courses during 1941, 1942, and 1943 are for the most part now at work in the 48 States and Puerto Rico, Hawaii and Alaska, filling in the gaps caused by the withdrawal of State personnel for military service.

UNITED STATES PUBLIC HEALTH SERVICE

Bethesda, Maryland*

Thomas Parran, Surgeon General
Warren F. Draper, Assistant to the Surgeon General
L. R. Thompson, Chief Inspection Officer

Division of Commissioned Personnel
Assistant Surgeon General P. M. Stewart in charge

Division of Foreign and Insular Quarantine and Immigration
Assistant Surgeon General G. L. Dunnahoo in charge

Division of Marine Hospitals and Relief
Assistant Surgeon General W. F. Ossenfort in charge

Division of Mental Hygiene
Assistant Surgeon General Lawrence Kolb in charge

Division of Sanitary Reports and Statistics
Assistant Surgeon General E. R. Coffey in charge

Division of States Relations
Assistant Surgeon General J. W. Mountin in charge

Division of Venereal Diseases
Assistant Surgeon General R. A. Vonderlehr in charge

National Institute of Health
Assistant Surgeon General R. E. Dyer, Director

*Bethesda, Maryland, is the temporary headquarters of the United States Public Health Service. The permanent headquarters on Constitution Avenue, Washington, D. C., is occupied by Combined Chiefs of Staff, United States and Great Britain.

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The United States Public Health Service is 145 years old. Its ancestry goes back to the Marine Hospital Service established by Act of Congress in 1798 to take care of sick and injured seamen. The custom prevailed at that time of putting these unfortunates ashore at the most convenient port and leaving them to shift for themselves.

People of compassion from the waterfront to the halls of Congress spoke out against this inhumanity. Others objected because they feared infection. Still others argued against the practice because they had found themselves with sick seamen on their hands. The economic argument came from people who foresaw the importance of the merchant marine to the new nation and felt that provision should be made for the men of this service.

Out of this usual mixture of motives the Marine Hospital Service was born. Twenty cents a month was collected from the seamen by the Collectors of Customs for hospitalization and turned over to the Treasury Department. The new Marine Hospital Service, consequently, was put under the Treasury, and there it remained throughout its changing nature and fortunes for many years.

In 1902, Congress changed the name to the Public Health and Marine Hospital Service, and in 1912 changed it again to the United States Public Health Service. In 1939, the Service was transferred from the Treasury Department to the new Federal Security Agency which had been formed to bring the health and welfare agencies of the government under one common head.

The commissioned officers of the Public Health Service hold commissions similar to those in the medical corps of the Army and Navy. The five grades from assistant surgeon to medical director correspond to the grades from 1st lieutenant to colonel in the Army Medical Corps and from 1st lieutenant, junior grade, to captain in the Naval Medical Corps. Commissions in the Public Health Service are held by physicians, dentists, engineers, and other professional and technical personnel.

War's unprecedented demands upon the Public Health Service have increased the ranks of all classes of personnel. The Service now has nearly 600 regular officers on active duty and 72 waiting orders. Reserve officers number over 1600. More than 1200 nurses are on duty at headquarters, in hospitals, and at other stations. Altogether the Service has over 17,000 employees.

The evolution of the United States Public Health Service from a hospital agency into a national health department is practically synonymous with the development of the public health movement itself. The agency was charged with more duties as more comprehensive attempts were made to prevent disease.

Medical officers of the early marine hospitals in American ports became familiar with diseases brought into the country from abroad -- cholera, plague, yellow fever, smallpox. As they became specialists, they were looked to as keepers of the country's ports against the entry of communicable disease. Inevitably the agency to which they belonged was charged by Congress with this duty, which is referred to as foreign quarantine. A very modern aspect of the work of foreign quarantine may be seen at airports of entry where planes are sprayed and passengers inspected in the never-ending watchfulness against yellow fever.

The domestic counterpart of this work -- known as domestic quarantine -- is that of preventing disease from spreading across State borders or within States. Officers of the Marine Hospital Service were authorized from time to time to help local health authorities fight epidemics. Control of communicable disease was eventually incorporated into the legal responsibility of the Service. A good example of the constant activity of the Public Health Service to keep disease from traveling is the inspection of water supplies and sanitary facilities of interstate carriers - buses, trains and airplanes.

Over the course of the years, the Public Health Service and the State governments worked into a close partnership to prevent disease and promote health. During the 1930's, two notable pieces of legislation gave the Federal partner funds with which to back the work of the States by grants-in-aid -- Title VI of the Social Security Act and the Federal Venereal Disease Control Act.

The cooperative health work of the Federal-State partnership stood the country in good stead when war approached. In preparing for war, we acquired strategic areas of mobilization and war production, areas receiving an influx of new populations. The Public Health Service and the State and local health authorities have been working zealously to expand health services in these endangered regions.

During the years when the Public Health Service was evolving, research became increasingly important. The best means toward preventing disease is to find out what causes it. "Where?" was the big question in early public health attempts to control epidemics. But it was the "Why?" of innumerable investigators, famous and obscure, that led to our present freedom from the ravages of infectious disease.

The research branch of the Public Health Service started as a small laboratory in a marine hospital. In 1901, Congress established within the Service the Hygienic Laboratory which was authorized to investigate infectious and contagious diseases. In 1912, the authorization was extended to all diseases of man. In 1930, the name was changed to the National Institute of Health. One of the many lines of research that has brought fame to the Institute was Goldberger's investigation of the cause and cure of pellagra. In 1937, the National Cancer Act added the National Cancer Institute to the National Institute of Health.

Good public health statistics became more and more necessary as the prevention of disease was undertaken on an ever greater scale. The Public Health Service collects and publishes reports of disease prevalence in the United States and foreign countries, and compiles and publishes laws, regulations and court decisions relating to public health.

Health education grew up as we gained knowledge of diseases and how to prevent or cope with them. The Public Health Service uses all the modern media for reaching the public -- the printed word, the graphic arts, radio and motion pictures.

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As the Public Health Service acquired diverse duties in the course of the years, its responsibilities for giving medical and hospital care also increased. The marine hospitals now number 25. One is a tuberculosis sanatorium at Fort Stanton, New Mexico. One is the national leprosarium at Carville, Louisiana. The other marine hospitals are general hospitals. They are still the hospitals for our merchant seamen, and for a vast number of other potential patients as well. Coast Guardsmen, members of the Coast and Geodetic Survey, beneficiaries of the Employees Compensation Commission and other specified groups are entitled to care in these hospitals.

Two unique narcotic hospitals for the treatment and rehabilitation of drug addicts are operated by the Service at Fort Worth, Texas, and Lexington, Kentucky.

Two old and famous hospitals of Washington, D. C., were brought under the administration of the Public Health Service in 1940 by executive order. St. Elizabeths, established in 1855, is responsible for the care of the mentally ill among members of the armed forces, residents of the District of Columbia, and certain other groups. Freedmen's Hospital for Negroes was founded in 1865 to provide for the freed Negroes.

The far-flung duties with which the Public Health Service has gradually been charged as it evolved into a national department of health are discharged by various divisions under the administration of the Surgeon General.

The Office of the Surgeon General. Assignments of the commissioned personnel are determined in this office. All Civil Service appointments and problems are handled here and fiscal and budgetary affairs of the Service. This office administers the 9 district offices of the Public Health Service. It handles certain special projects such as the administration of Public Health Service funds for the medical care of civilians injured by enemy action and of civilians evacuated from combat zones.

Division of Commissioned Personnel. The affairs of the commissioned officers are handled here. The division recruits and interviews candidates for the commissioned force, has charge of leaves of absence, travel orders and other details in the official life of the officers.

Division of Foreign and Insular Quarantine and Immigration. This division carries out the early public health duty imposed upon the Service of keeping disease from entering the country. Diseases are kept out of the country by quarantine examination and treatment of maritime vessels, aircraft, travellers and crews.

Division of Marine Hospitals and Relief. This division operates the marine hospitals, dispensaries of the Public Health Service, and also Freedmen's Hospital. Medical and dental officers of this division are assigned to the Coast Guard, the Maritime Commission, the Alaska Highway project and other posts.

Division of Mental Hygiene. This division operates the two Service hospitals for the care and rehabilitation of drug addicts. It also supervises and furnishes medical and psychiatric care in Federal penal and correctional institutions. Studies are made into drug addiction and mental disease. The division is charged with investigating the legitimate needs for narcotic drugs.

Division of Sanitary Reports and Statistics. This is an office of health information. A staff of writers and artists prepare the wide range of material used in the promotion of health. Public Health Reports, a weekly publication, carries data on the prevalence of disease and reports on the laboratory and field studies conducted by members of the Public Health Service.

Division of States Relations. Cooperative health work with the States for the control of disease and the improvement of public health programs is the specialty of this division. It carries out the provisions of Title VI of the Social Security Act, makes grants to the States, and furnishes advisory services to the States.

Division of Venereal Diseases. This division works with the States in preventing the venereal diseases and bringing them under control. It administers the Federal Venereal Disease Control Act, and allocates grants-in-aid to the States under this Act.

National Institute of Health and National Cancer Institute. All the diseases of mankind make up the field of endeavor for this research branch of the Public Health Service.

The National Institute of Health is charged with insuring safe and standard biologic products such as vaccines, serums, antitoxins, toxoids and arsenicals. All such products are examined by experts of the Institute.

Headquarters of the National Institute of Health and the National Cancer Institute are located in Montgomery County, Maryland, a few miles beyond the District of Columbia.

FEDERAL SECURITY AGENCY
U. S. PUBLIC HEALTH SERVICE
ORIENTATION COURSE FOR PUBLIC HEALTH PERSONNEL
EMERGENCY HEALTH AND SANITATION ACTIVITIES
WASHINGTON, D. C.

Outline of Lecture: ORGANIZATION AND ACTIVITIES
STATES RELATIONS DIVISION

by

Joseph W. Mountin
Assistant Surgeon General
U. S. Public Health Service

- ORGANIZATION -

1. Central Office

Basic	Emergency
(a) General Administration	(a) Recruitment and Training
(b) Budgets and Accounts	(b) Hospital Planning
(c) Operations Control	(c) Medical Service
(d) Sanitation	(d) Malaria Control
(e) Dentistry	
(f) Nursing	
(g) Tuberculosis Control	
(h) Plague Control	
(i) Typhus Control	

Central office is concerned with securing appropriations, formulating general policies, rendering consultation service, and exercising general supervision over field activities.

2. District Offices

No. 1 New York, New York
No. 2 Washington, D. C.
No. 3 Chicago, Illinois
No. 4 New Orleans, Louisiana
No. 5 San Francisco, California
No. 6 San Juan, Puerto Rico
No. 7 Kansas City, Missouri
No. 8 Denver, Colorado
No. 9 San Antonio, Texas

Each district is under the charge of a director. The staff is composed of one or more representatives of the basic public health professions, together with the necessary clerical, administrative, and fiscal personnel. District offices function for the several divisions of the U. S. Public Health Service on all matters except those pertaining to scientific research, routine operation of fixed stations, and foreign quarantine.

3. Liaison Offices

Corps Area No. 1 - Boston, Massachusetts
Corps Area No. 2 - New York, New York
Corps Area No. 3 - Baltimore, Maryland
Corps Area No. 4 - Atlanta, Georgia
Corps Area No. 5 - Columbus, Ohio
Corps Area No. 6 - Chicago, Illinois
Corps Area No. 7 - Omaha, Nebraska
Corps Area No. 8 - San Antonio, Texas
Corps Area No. 9 - Fort Douglas, Utah
Department of Puerto Rico - San Juan, Puerto Rico
Department of Hawaii - Honolulu, T. H.

One medical officer is assigned to headquarters of each Corps Area or Department. His purpose is to facilitate operating relationships between military and civil health authorities. He does not have direct administrative authority or responsibility in relation to either the military or the civil groups of the population.

- NORMAL ACTIVITIES -

1. Grants to States (Title VI Social Security Act) - Purpose is to equalize opportunities for health of population groups living under varying social, economic, or environmental circumstances.

(a) Administration:

$11,000,000 disbursed annually to the several States for support of State and local health services, including training of personnel. Regulations governing the use of these funds are promulgated by the Surgeon General after consultation with State and Territorial health authorities. State health department responsible for preparation of program, submission of budgets, and operation of service. Money apportioned among States, in accordance with their population, financial needs, and special health problems. In some States the State health department performs service directly; in others a large proportion of both State and Federal funds are paid to political subdivisions for support of local health department activities.

(b) Supervisory and advisory services:

U. S. Public Health Service responsible for review of programs, budgets, and merit systems, and for audit of accounts. Consultation is rendered in the major public health specialties, such as: sanitary engineering, food and milk sanitation, public health nursing, tuberculosis control, and mental hygiene.

Note: Title V, Social Security Act administered by U. S. Children's Bureau; Venereal Disease Control Act, by Venereal Disease Division, U. S. Public Health Service; registration of births and deaths by U. S. Census Bureau.

(c) Personnel training:

Each year about 1000 persons are given opportunity for training. Such training may include resident study at schools of hygiene, traveling fellowship, or supervised experience. Person recommended for training by State health officer and application approved by Surgeon General.

2. Interstate Quarantine - Purpose is to prevent transmission of diseases by persons and articles that move through channels of commerce from one State into another:

(a) Sanitation of trains, busses, airplanes, and vessels.
(b) Supervision over production and packing of shellfish.
(c) Sterilization of garbage.
(d) Abatement of stream pollution.
(e) Supervision over travel of infectious persons.
(f) Supervision over shipment of infectious animals.
(g) Supervision over shipment of infectious articles of trade.

Note: Large part of basic inspection done by States; U. S. Public Health Service certifies as to character and adequacy of the State system.

3. Prevention of Epidemics - Purpose is to assist in eradication of selected endemic diseases and in the control of acute outbreaks of disease. A substantial part of the appropriation is held in reserve for emergencies to be released upon recommendation of the Surgeon General. The program varies, depending upon several factors, namely,

(a) Occurrence of major outbreaks of serious disease, particularly if interstate or international spread threatens.

(b) Occurrence of disasters, especially floods which disrupt operation of health and sanitation facilities.

Note: Except under unusual circumstances or where U. S. Public Health Service has exclusive jurisdiction, all work is undertaken in cooperation with State health agencies.

4. Cooperation with other Federal Agencies:

(a) National Park Service - Periodic health surveys of national parks and monuments; design and supervision over operation of sanitary installations.

(b) Maritime Commission - Review of plans with regard to health and sanitation installations for new vessels.

(c) Office of Indian Affairs - General advisory and supervisory service, in relation to sanitation on Indian reservations.

(d) Farm Security Administration - Administration of health and sanitation program, through assignment of personnel.

(e) Work Projects Administration - Review of project proposals involving health and sanitation, submitted by State and local sponsors; technical supervision of projects covering community sanitation, malaria control, and mine sealing.

- WAR-TIME ACTIVITIES -

1. Redirection or Intensification of Normal Activities:

(a) Assignment of additional regular and reserve personnel to medical department of Coast Guard.

(b) Diversion of Title VI grants to support of special war activities and to support of general work in war areas (those of military or industrial concentration).

(c) Medical care of seamen; consultation with Maritime Commission in respect to sanitary features of design and operation of ships.

2. Emergency Health and Sanitation Activities:

(a) Recruitment and training of emergency personnel (Orientation Course) for assignment to war areas.

(b) Organization and/or strengthening of local health services in war areas.

(c) Conduct of special programs for control of malaria, typhus fever, and plague in war areas.

(d) Tuberculosis case-finding among industrial workers and among draftees.

(e) Industrial hygiene (organized under National Institute of Health).

3. Nurse-training:

(a) Grants to schools for increasing enrollment in basic nursing education.

(b) Grants to schools for support of refresher courses for inactive nurses who desire active duty.

(c) Grants to schools for postgraduate instruction in the various specialties of nursing.

(d) General advisory and supervisory assistance in relation to operation of above program.

4. Cooperation with other Federal Agencies:

(a) Army and Navy - Protection of health of military forces outside of military reservations, general advisory service on industrial hygiene in arsenals.

(b) Manpower Commission - General advisory assistance.

(c) State Department - General advisory assistance.

(d) Office of Civilian Defense - Assignment of personnel for operation of medical section in both central and regional offices, operation of blood bank for civilian war casualties, care of persons injured as result of enemy action.

(e) War Production Board - General advisory assistance in relation to materials affecting health and sanitation.

(f) Federal Public Housing Authority - Assignment of personnel for operation of health section. Future program contemplates at least first-aid and nursing service in dormitories.

(g) Federal Works Agency - Certification as to public health necessity of projects to be constructed under provisions of Community Facilities (Lanham) Act; consultation service, in respect to design and operation of hospitals, health centers, water, and sewerage installations; sponsorship of community sanitation projects involving privies, septic tanks, wells, and garbage collection.

(h) War Relocation Authority - General supervisory and advisory service in relation to health and sanitation of Japanese in reception centers.

(i) Office of the Coordinator of Inter-American Affairs - General consultation service on matters of construction and operation of health and sanitation facilities, sponsored by this agency in the Central and South American Republics.

(j) Procurement and Assignment Service - General advisory assistance, especially with respect to criteria for determining State quotas for physicians, and in respect to deferment of persons in public health positions.

Abstract of and Excerpts from Lecture on

WORK OF THE DISTRICT OFFICE - U. S. PUBLIC HEALTH SERVICE

by

Medical Director W. K. Sharp, Director, U.S.P.H.S. District No. 2

Just before the last war, Medical Director U.S.P.H.S., L. L. Lumsden, now retired, the father of county health work, and one of the country's leading epidemiologists and his associates, carried on demonstrations - sanitary surveys in strategically located counties over the United States - to establish the basic principles or rural sanitation and county health work under full-time trained direction. Specific appropriations of $25,000 were made by Congress for the development of rural health service (1917) in cooperation with State health departments.

"The enactment of the Social Security Act in 1935 (appropriation 8 million dollars) and the Venereal Disease Control Act in 1936 (appropriation nearly 12 million dollars) is the result of public opinion for health work and marks the turning point of public health in this country.

"In the District office, there are stationed medical officers, experienced sanitary engineers, public health nursing consultants, budget officers and other technical personnel who are trained and experienced in public health administration. Assisted by the above professional staff the District Directors extend their cooperative services to the respective states on all matters pertaining to financial and technical aid in connection with Title VI of the Social Security Act, the Venereal Disease Control Act and other cooperative Federal-state relationship. These district offices are in reality a branch of the Public Health Service.

"When a Public Health Service officer is assigned to a State to assist in carrying out a sanitation or public health program, he becomes for the time being part and parcel of that local or State health department." It cannot be too strongly impressed upon each person in attendance at the Orientation Course that "personnel employed by State and local health agencies under Title VI of the Social Security Act, the special Venereal Disease Control Act, and those employed by the Public Health Service and assigned to States under the National Defense Program serve and serve only under the direction and supervision of the official State agencies, under authority of State and local laws and regulations in the same manner as any other State or local employee."

In the early days of public health work, many of the medical officers of the Service were assigned to States, and acted as State health commissioners, and Public Health Service engineers served as the State sanitary engineers. Then when the work was well established with capable State medical officers and engineers in charge the Service personnel was withdrawn to serve another State. Much the same plan is now being followed by the Service in order to supply trained doctors, nurses and engineers to the States where new Army camps or war industrial plants are under development and a great need is felt for sanitation and medical services.

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In every great emergency, whether a war, flood, or drought, public health work has expanded and grown.

"It appears that not only in this war but following it, public health workers will be needed more than ever in America and throughout the world.

"It is quite likely that many of the persons now entering public health for the first time will continue in this field of activity permanently if a real effort is made to adjust themselves in the community or State to which they are assigned.

"From a lifetime of effort in the Public Health, I can assure you that you are now a part of the finest body of public health workers in the world. I hope that you prove equal to the demands which the States will make upon you and live up to the high ideals of the U. S. Public Health Service."

DISTRICT DIRECTORS

(As of October 1, 1943)

Medical Director R. C. Williams Director, U.S.P.H.S. District No. 1 Sub-Treasury Building 15 Pine Street New York 5, New York	Connecticut Delaware Maine Massachusetts New Hampshire	New Jersey New York Pennsylvania Rhode Island Vermont
Medical Director W. K. Sharp, Jr. Director, U.S.P.H.S. District No. 2 National Institute of Health Bethesda 14, Maryland	Washington, D. C. Maryland North Carolina Virginia West Virginia	
Medical Director Frank V. Meriwether Director, U.S.P.H.S. District No. 3 U.S. Customhouse 610 Canal Street Chicago, 7, Illinois	Illinois Indiana Kentucky	Ohio Wisconsin Michigan
Medical Director Charles L. Williams Director, U.S.P.H.S. District No. 4 150 Baronne Street 1307 Pere Marquette Building New Orleans 12, Louisiana	Alabama Florida Georgia South Carolina	Mississippi Tennesse Louisiana
Medical Director Walter T. Harrison Director, U.S.P.H.S. District No. 5 1223 Flood Building San Francisco 2, California	Alaska Arizona Nevada	California Oregon Washington
Medical Director R. A. Vonderlehr Director, U.S.P.H.S. District No. 6 San Juan, Puerto Rico	Puerto Rico	Virgin Islands
Medical Director C. C. Applewhite Director, U.S.P.H.S. District No. 7 215 West Pershing Road Kansas City 8, Missouri	Arkansas Iowa Kansas Missouri Oklahoma	Nebraska North Dakota Minnesota South Dakota

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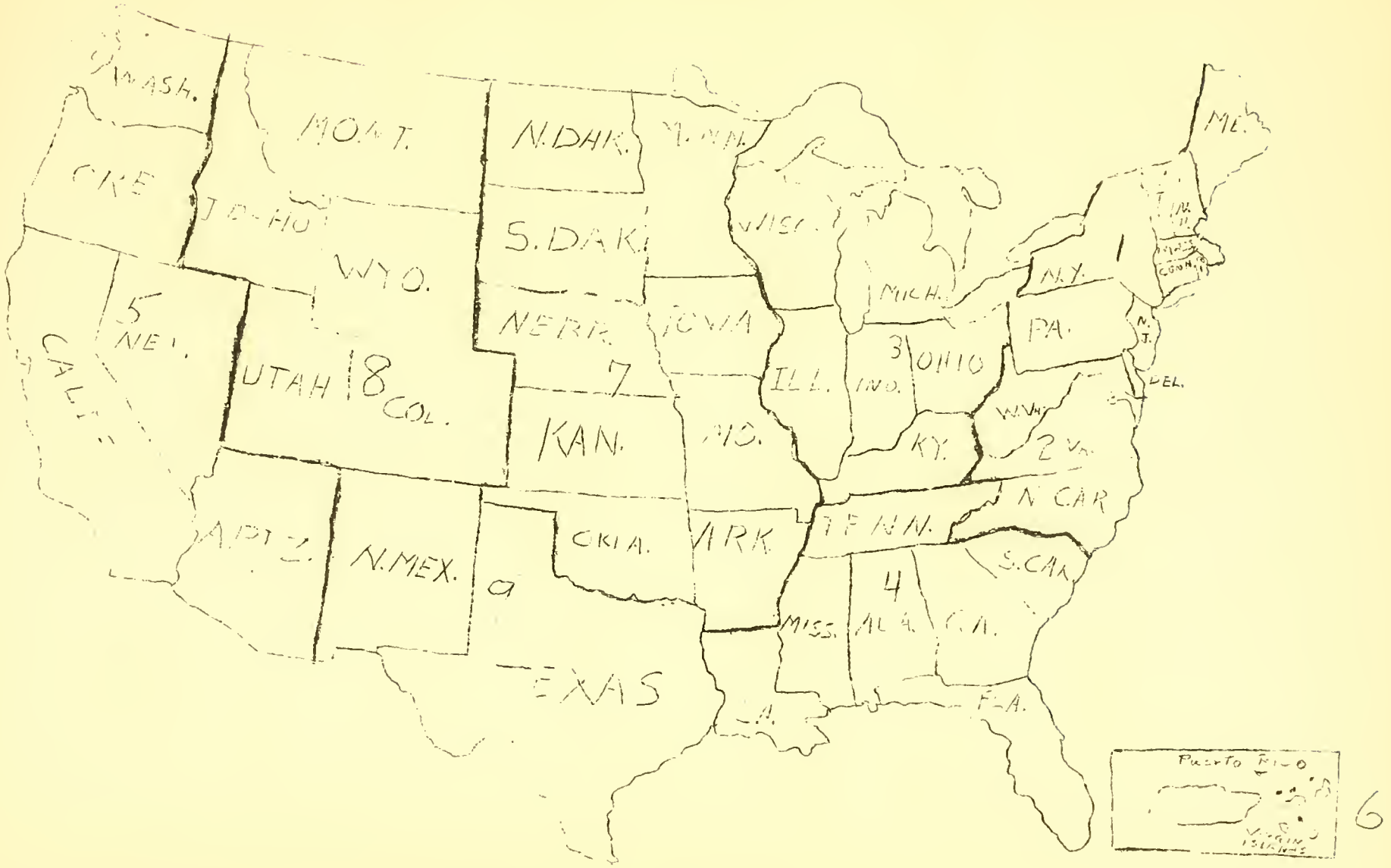
Medical Director Fred T. Foard Director, U.S.P.H.S. District No. 8 617 Colorado Building 16th and Callfornia Streets Denver 2 Colorado	Colorado Idaho Montana	Utah Wyoming
Medical Director K. E. Miller Director, U.S.P.H.S. District No. 9 831 Mercantile Bank Building Commerce at Ervay Dallas 1, Texas	Texas	New Mexico
Medical Director Robert H. Onstott Director, U.S.P.H.S. District No. 10 Honolulu, Territory of Hawii	Hawii	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Abstract of and Excerpts from Lecture on

MARINE HOSPITALS AND RELIEF

BY

W. F. Ossenfort, Assistant Surgeon General

U. S. Public Health Service

Funds for the operation of the Marine Hospital medical service were derived for many years by way of deductions made from the merchant seaman's salary. This was discontinued in 1884. A tonnage tax raised the funds from 1884 to 1906. Since 1906 funds have been provided by direct appropriation by the Congress.

Beneficiaries now include 17 groups (par. 603, Regulations).

There are 25 marine hospitals (Hospital Division Circular No. 210). The hospital at 67 Hudson Street, New York City, has no in-patient facilities, the hospital at Carville is a facility for the treatment of leprous persons, and the one at Fort Stanton is a tuberculosis hospital primarily. The hospital at Ellis Island has a rather extensive neuropsychiatric service and the hospital at Baltimore has a completely equipped tumor service. Patients are transferred from one marine hospital to another to take advantage of these special facilities. The Marine Hospital at Key West was closed February 17, 1943.

The bed capacity of the marine hospitals is 6594. The peak load during the past year was 6180. Seventy per cent of these patients are from groups which are actively engaged in the war effort, that is: merchant seamen, Coast Guard, and pay patients of the Army, Navy, and Marine Corps.

The average per diem cost at Marine Hospitals, first six months fiscal year 1943, was $4.50.

Relief stations are located in 108 ports in the United States and at 15 places outside the continental United States (Hospital Division Circular No. 210). At most of these places in-patient care is provided by contract with civilian hospitals in the communities. Contract hospital care of this type ordinarily runs to about 380 patients.

The Hospital Division reimburses St. Elizabeths Hospital, Washington, D. C. for the treatment of psychotic patients, the average load being about 140.

The Medical Officer in Charge of a marine hospital combines the function of Superintendent and Chief of Staff. He is responsible for all business and professional care. In the larger hospitals specific duties are delegated to various members of his staff.

Women nurses have been on duty in the marine hospitals since 1918. Nurses, dietitians and aides constitute a mobile corps under the administrative control of the Superintendent of Nurses at headquarters.

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The Hospital Division furnishes medical officers for the U. S. Coast Guard, the War Shipping Administration, the Alaska Highway, the Federal employees' health services in Washington, the U. S. Employees Compensation Commission, the alien detention camps, and the Office of Indian Affairs.

Freedmen's Hospital in Washington was established following the Civil War for the treatment of colored patients: "freedmen and refugees." It has been a part of the Public Health Service since June 30, 1940, and is operated under the direction of the Hospital Division.

All the larger marine hospitals have a trained physician anesthetist and a full-time pathologist on the staff. The Standard Nomenclature of Disease and Operations is used. The Public Health Service Milk Code is followed.

Continuous caudal analgesia was developed in the Marine Hospital at Stapleton, N. Y.

217 regular medical officers; 50 regular dental officers; 282 reserve medical officers; 171 reserve dental officers,--a total of 720 commissioned officers, are on duty with the Hospital Division.

Abstract of and Excerpts from Lecture on

WORK OF DIVISION OF SANITARY REPORTS AND STATISTICS

by

E. R. Coffey, Assistant Surgeon General in Charge

Division of Sanitary Reports and Statistics

I should like to begin our discussion by reminding you that our Division has long since outgrown its name. One of the most important duties is still the collection and publication of morbidity and mortality data. However, this Division is the Public Health Service's publisher and editor, its popular writer and artist, its press representative and photographer, its motion picture producer and radio broadcaster, its organizer of community health education and its salesman of health to the general public.

Initial reports of cases of communicable disease are made by physicians to the local or State health department. State health officers send weekly telegraphic reports of certain diseases to the Public Health Service and final weekly tabulations are published in Public Health Reports, which is the weekly journal of the Service. It contains also reports of disease prevalence from United States consular sanitary districts in foreign countries. Public Health Reports has a circulation of 9,300 copies. Thus this weekly bulletin gives the most reliable, up to the minute summary of the prevalence of certain communicable diseases in the United States and in the world. But the Division has other important functions which relate to making available to the general public, accurate, interesting information about public health.

In fact, the duty of interpreting the work of the Service and of public health in general absorbs the major efforts of the Division. With limited resources the Division has been able to develop materials in all the customary media to reach the public, popular pamphlets, posters, exhibits, motion pictures and radio broadcasts and news releases.

Motion pictures and film strips are two media, which we find very useful. During the past two years, we have greatly expanded our motion picture program. This year we have brought out one new motion picture "Fight Syphilis" which depicts the community problem of the disease, and the means of its control. We now have in production a film on the management of gonorrhea for the training of medical and nursing personnel.

We have found the film strip, which is the modern version of the lantern-slide lecture and combines sound with still pictures, most useful in the field of sanitation and malaria control. I feel sure that if you have seen any run-of-the-mill film strips and compare them with our "Malaria" and "Safe Water" you will agree that the Service has something of which to be proud.

The first organized health education program to be conducted by the Service was the year-round program which has developed from National Negro Health Week. This program, an educational one which started with the work of Booker T. Washington 25 years ago, focuses the attention of communities and individuals of all races on the health problems of the

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Negro. A community program for Negroes on a nation-wide scale, with thousands of cooperating groups is thus carried on through our Division.

Our Division is endeavoring to interpret to the people, the manifold activities of the eight divisions of the Public Health Service, but we are trying to do more than that. We are attempting to help the State and local health departments in the major job of getting their message across.

Anyone who has been actively engaged in doing public health work realizes that he must constantly be a health educator. The men, women, and children in your community must come to understand what your public health activities mean to them. They must desire health for themselves, and you must rely upon health education to create that desire.

I have worked in many States and recall in particular how full-time health departments have been installed, when their need was dramatized by a flood or drought or an epidemic, but later they failed and went out of business because the health officer and his staff failed to hold the interest of the general public in the work which the health department was carrying on. Above all things, remember that you, as a public health official must be a health educator, and let the public know what you are doing and how the work benefits them.

Remember as you go to your new tasks in these war areas, that we are eager to hear from the people in the field like yourselves, who are going to need the cooperation of an enlightened public. Come and see us, and learn the facilities which we have to offer to help you get your public health message across.

Abstract of and Excerpts from Lecture on

WORK OF NATIONAL INSTITUTE OF HEALTH

by

Dr. R. E. Dyer

Director, National Institute of Health

The National Institute of Health is a research institute. It is our aim to adhere closely to research activities, but in times of great national emergency, it is difficult to keep out some service activities.

The Institute was a rather small affair in 1887 when Doctor Kenyon, whose picture you see there on the wall of Wilson Hall, in the days of Koch and Pasteur bought a Zeiss microscope and started his work in a small room in the Marine Hospital at Staten Island. He worked with Koch in Germany for a few years and brought back some organisms from Europe.

In the period 1891-1900, the Laboratory of Hygiene occupied the home of Ben Butler. Doctor Edward Francis, whose picture you see on the wall at the back of Wilson Hall, was one of the early workers here. He is still alive though retired a few years ago and still works in his beloved laboratory. Doctor Rosenau, whose portrait is on the left wall, also worked in this early period of the Laboratory before it moved to 25th and E Streets in 1902. About this time the Biologics Act was passed. Congress by this action definitely recognized the Hygienic Laboratory, making an appropriation of $35,000. In the Congressional Act was the basic authorization "to make investigation of infectious and contagious diseases and matters pertaining to the public health."

The Biologics Act has been unique in that there has never been a test case taken into the courts. It has had the support of all manufacturers since it was placed in operation in 1902. The United States was the first country to exercise control of biologics products. England, Canada, and New Zealand passed biologic acts based upon our Act here in the United States, thus our Act and work have fostered world standards. Our biological products in the United States are superior to any in the world.

In 1918, Congress appropriated $250,000 for an additional building for biologic products. In 1930, $750,000 provided two large modern buildings at 25th and E Streets on the land acquired from the Navy years before. During the last seven years extensive physical plant and personal expansion have taken place at a new site on 90 acres of ground just outside the District of Columbia in Bethesda, Maryland. This rolling ground belonging to Mr. and Mrs. Luke Wilson was a gift to the government because of their interest and devotion to the cause of public health. In 1936, $1,463,000 were spent for three buildings. In 1937, $1,500,000 additional was made available and also in 1937 the Senate passed a bill unanimously with 94 senators petitioning for it, setting up the National Cancer Institute with $750,000 to provide for buildings and administration. In 1939 - 41 the equipment and staff moved into six new buildings.

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At this time, our great emphasis is on those diseases which stand out because of their importance to the military forces. Research on human diseases is very difficult. We can't use human beings for our investigations but must transfer the diseases into animals and birds. We have never lacked funds to expand our work. Frequently lack of ideas cramps us, or lack of good people cramps us, but the Congress has been generous indeed in supplying the funds and equipment to enable us to carry on our scientific research on the "diseases of man".

FEDERAL SECURITY AGENCY
U. S. PUBLIC HEALTH SERVICE
ORIENTATION COURSE FOR PUBLIC HEALTH PERSONNEL
DEFENSE HEALTH AND SANITATION SERVICES
WASHINGTON, D. C.

NOTES ON THE WORK OF THE FOREIGN QUARANTINE DIVISION

By

G. L. Dunnahoo
Assistant Surgeon General
U. S. Public Health Service

I. Organization:

The National quarantine system functions through 21 major quaratine stations, including San Juan and Honolulu, and 167 minor stations in the continental United States, insular possessions and foreign countries as follows: United States, 129; insular possessions, 20; foreign countries, 18. There are 47 airports of entry. Officers may be detailed to consulates in any part of the world.

A. Acts as a barrier at the frontiers

1. Prevent entry of the quarantinable diseases:
   a. Cholera
   b. Yellow fever
   c. Plague
   d. Smallpox
   e. Typhus
   f. Leprosy
   g. Anthrax
   h. Psittacosis

2. Medical advisers to the Immigration Service

II. History – Quarantine is fundamentally amplification and perfection of the principle of segregation of the sick. This principle probably had been practiced by man before he left written records.

A. Dated events in development of quarantine

III. Quarantine procedures:

A. Medical examination on shipboard

1. Inspection of passengers
2. Bills of health
3. Ship's log
4. Sanitary record

B. Inspections of the carrier
   1. Rat inspection of surface vessel
   2. Insect inspection of aircraft

C. Fumigations
   1. Surface vessel
   2. Aircraft

D. Ratproof construction work
E. Ship sanitation
F. Ship register
G. Sanitary log
H. Radio pratigue

IV. Immigration work

A. Barrier to defective aliens
   1. Diseases and defects by classes

V. Aircraft quarantine

A. Quarantine problems altered by speed of travel
   1. Passenger inspection and surveillance system
   2. Plane inspection and disinsectization measures
   3. Vaccination program flight personnel
   4. Tropical diseases under consideration

VI. Impact of the war on quarantine

A. Reduced personnel
B. Convoy system
C. Necessity for expediting ships
D. Breakdown of standards at sea and in ports
E. Sources of information reduced
F. Army and Navy activities on the stations

VII. Summary and outlook

Abstract of and Excerpts from Lecture on

MENTAL HYGIENE

by

Lawrence Kolb, Assistant Surgeon General in charge.

Division of Mental Hygiene

The approach to the problem of prevention of nervous and mental diseases is much more difficult than the approach to many other diseases, and as a consequence mental hygiene is not as tangible as some of the other fields of preventive medicine. This is doubtless one of the reasons why we have not made more progress in this field. It has been neglected by health departments in the past, but sensing the importance of the public health approach the Public Health Service started to work on the problem several years ago and certain state health departments cooperating with the Service have established divisions of mental hygiene. In these divisions trained psychiatrists, public health nurses, and social workers have been employed in order to work out a well rounded program of prevention.

The results of mental disease are seen everywhere about us - in broken homes, frustrated lives, and social disorder including that caused by alcoholism and crime. In fact, there are approximately three-quarters of a million patients in American institutions because of mental disorders of one kind or another. The annual cost of taking care of these patients is already very great and the load of patients in institutions will doubtless increase because of the war. The extent of the problem in different areas varies, but it is safe to assume that 5 to 6 per cent of the population of any area has some form of mental, emotional, or personality deviation of sufficient severity to cause them to stand out from their fellows and call for special attention of one kind or another. In boom-town areas there is likely to be an increase of such difficulties because of the nature of the persons who come to such areas and the special difficulties they have in adjusting themselves to the new environment.

The resources now available for meeting the mental health problem are various health, welfare and other social agencies including the schools and courts. These resources are nearly all inadequate. Very few areas have adequate mental health organizations. In some, what little is done is carried on by public welfare or voluntary organizations. It is, therefore, timely that state health departments take a hand in the mental hygiene program.

Psychiatry in the United States is far more advanced than in any other country. There are 3,000 trained physicians and 6,000 trained nurses in this field. Psychiatric social workers and occupational therapists account for about 1,500 more trained workers. A large proportion of this personnel is employed in mental hospitals of various types, but the armed forces have now taken over a great many of them. A real effort is being made by the armed forces to weed out those persons who are somewhat unstable so as to increase the efficiency of the services as well as to reduce the mental disease loads which will be occasioned by the war.

Our public mental hospitals are seriously understaffed and in most places are inadequately supported by public funds. As a result of this patients stay in them longer than they should, and in some cases mild conditions become chronic because of inadequate treatment. Also the poor food that they get in

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some institutions has doubtless tended to add nervous defects due to vitamin deficiency to an already weakened constitution, thereby producing permanent damage to a mental organization which at first was only mildly affected.

One function of the mental health sections of health departments will be to advocate more humane procedures for the commitment of persons to mental institutions. In many places this is now brought about only by legal procedures that have the effect of putting the mental case in the category of criminals. The patient is sometimes taken to the hospital handcuffed after an unnecessary residence in jail, and in a very large number of jurisdictions they are brought to the hospitals by police officers instead of by hospital nurses or attendants. All of this has a tendency to leave scars that are hard to remove.

A very large proportion of hospitalized mental patients recover if properly treated, and many who have mild chronic disorders are brought around to a condition where they can make a sufficient adjustment outside of the hospital. These patients could be attended to by a boarding out system which is less expensive and more effective for the permenent care of such patients than is residence in an institution. The boarding out system needs to be extended in the United States, both for the benefit of patients and for the public treasury.

The neglected field in mental medicine is research. The Service has been trying to develop this along extensive lines so that eventually increased knowledge of causes will lead to more effective measures of prevention and cure than we now have. In the meantime we must develop organizations to make use of the knowledge that we now have. Education should be an important function of the mental health organization. Neither the public nor the general practitioner is well informed as to mental disease. Unitl they are informed we may expect a continuance of the indifference, neglect, and even persecution of mental patients that now prevail in many places. The public health organization should have available psychiatric and child guidance clinics, public health nurse, psychiatrists and social workers in sufficient numbers to cover the local field. Public social workers in sufficient numbers to cover the local field. Public health nurses should have training in mental disease so that in the course of their activities they can in a subtle way introduce mental hygiene principles into the homes. The local mental health organization would provide some treatment facilities as well as consultation service for local physicians.

The period through which we are passing makes it more necessary than ever before to tackle this difficult and intangible health problem in a serious way. Many of the essential principles of the problem are known and much can be accomplished by applying these principles. With the gradually increased knowledge that will be acqired through experience and research other techniques will be devised. Some of these will come through discoveries in other fields of medicine. An example of these is our nutrition program and the fight against venereal disease, but psychiatrists must be ready to apply the special knowledge thus gained to their specific problems, and in this they have the support of public health agencies through the medium of special mental health organizations that will work to prevent mental diseases as health departments now work to prevent tuberculosis, syphilis, malaria, and industrial diseases, etc.

Abstract of & Excerpts from Lecture on

ENGINEERING ASPECTS OF STATES RELATIONS ACTIVITIES

by

Senior Sanitary Engineer, T. N. Old, U.S.P.H.S.

Whereas, the Public Health Service in its early days, called "Marine Hospital Service", dealt largely with hospitalization of sick and disabled seamen, as it passed through the several stages of growth and development, it came about that in 1912 the Interstate Quarantine regulations were issued, and revised in 1916 and 1921. Sanitary engineers then began their activities in the Service for Congress had broadened the scope of the work and changed the name from "Marine Hospital Service" to the Public Health Service and given authorization to 'Study and investigate the diseases of man and conditions influencing the propogation and spread thereof, including sanitation and sewage and the pollution either directly or indirectly of the navigable streams of the United States." A relatively small corps of Sanitary Engineers was on duty with the Service in 1917, but this provided a valuable nucleus for the sudden expansion of engineering activities occasioned by the concentration of troops and development of war activities. During the war, approximately fifty engineers were assigned to extra-cantonment zone sanitation for the purpose of assisting the State and local health authorities. In this way, the death rate from typhoid fever and the enteric diseases in these areas were cut from 50 to 75 percent through providing safe water, milk and wastes disposal measures.

In the period following the First World War, extensive efforts were put forth to assist the States to build up strong, sanitary engineering staffs, and both personnel and funds were loaned to the States to demonstrate to them the value of these sanitation activities to reduce intestinal diseases. Nearly all States built up capable sanitary engineering divisions from 1920-1940. Through cooperative relationships, the Conference of State Sanitary Engineers was firmly established and since 1920 it has served as a clearing house to enable the States and the Public Health Service to work together on a National scale effectively for safe water supplies, safe milk supplies, improved sewage disposal and stream pollution control. Treasury Department drinking water standards were set up in 1914 to measure the quality of public water supplies used on common carriers. This was required by the Interstate Quarantine Regulations which state that "water provided for any person, firm or company or corporation for drinking or culinary purposes on any car, vessel or other conveyance while engaged in interstate traffic shall be from a source which is approved by the Surgeon General of the U. S. Public Health Service, as producing water of satisfactory sanitary quality and safety." Under this provision, water supplies used on airplanes, railroads and vessels are supervised by the Public Health Service working in cooperation with the State health departments. Practically all of the detail work is done by the States, for the Service engineering organization is still small, its real purpose being to guide and assist the States.

Shellfish sanitation came into national dramatic prominence following the typhoid fever epidemics in several large cities in December 1924. These outbreaks of typhoid fever were traced to oysters, polluted by sewage, and

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taken from certain sections of Long Island Sound. "There was a virtual collapse of the oyster industry due to the official embargo placed on shipments to some sections of the Country." The public became afraid of oysters. The Surgeon General called a conference and industry agreed to cooperate on safety measures. Thus, a nation-wide policy was adopted concerning the sanitation of production, handling and the shipping of shellfish frequently eaten uncooked, particularly oysters and clams. This policy placed the direct responsibility on the producing State and provided for certification by the U. S. Public Health Service if the standards were met, by such certificates, inland States could be certain of the safety of the shellfish.

Perhaps, the largest and most productive field of service of the Sanitation Section is that of assisting other Federal agencies, such as the U. S. Park Service, the National Housing Agency, Farm Security Administration, the Maritime Commission, the Office of Civilian Defense, the Indian Service, the Department of Justice, and many other Federal departments.

Rendering aid to States in times of disaster such as the Mississippi and Ohio floods and when epidemics of disease quickly appear are accepted practices and the States and Federal Service work as one large group, who have a common understanding and purpose, to bring about good sanitation and thereby prevent disease. Under such a cooperative plane, there is no fear by the States that their rights or prerogatives will be invaded by the Federal health authorities.

Abstract of and Excerpts from Lecture on

U. S. PUBLIC HEALTH SERVICE LIAISON OFFICERS ATTACHED TO THE ARMY

by

Senior Surgeon Edgar W. Norris - Third Service Command, Baltimore, Md.

The practice of assigning Public Health Service officers to extra-cantonment areas to assist State and local Health Departments during World War I provided the precedent for the request by the War Department in 1940 for the assignment of Public Health Service officers to Corps Area Headquarters to act in a liaison capacity between the Army and the civil health authorities. In compliance with the request, a commissioned medical officer of the Public Health Service was assigned to the headquarters of each of the nine Corps Areas, now designated as Service Commands.

The Service Commands are numbered and represent geographical subdivisions of the United States. With the exception of tactical units and certain exempted stations all Army installations located within those geographical limits are under the jurisdiction of the Commanding General of the Service Command, who is in the immediate echelon below the Commanding General of the Service of Supply Division of the War Department.

The headquarters of the Service Commands are as follows: First, Boston; Second, New York; Third, Baltimore; Fourth, Atlanta; Fifth, Columbus; Sixth, Chicago; Seventh, Omaha; Eighth, Dallas; Ninth, Salt Lake City. The Liaison Officer who is an independent agent of the Surgeon General is attached to the office of the Chief of the Medical Branch, formerly known as the Corps Area Surgeon, an echelon of the Supply and Services Division of the Service Command. His activities are in the interest of high standards of health in the Army but are not officially directed by the Commanding General. In fact, his field of operations includes those Army units and establishments within the territorial limits but exempted from Service Command jurisdiction. This freedom from the impediments of strict military etiquette, if not abused, is conducive to more effective liaison functioning.

In general the functions of the Liaison Officer are to effect the maximum cooperation between the military and civil authorities with respect to health protective measures in areas adjacent to military installations and in those communities where military personnel assemble for recreation; to assist in interpreting the health needs both to the Army and to the civil authorities; and to assist in preventing or correcting conditions which menace the health of the military forces. He performs similar functions with respect to war industrial areas located within his Service Command.

The matters with which the Liaison Officer is concerned are (1) environmental sanitation which includes safe water supplies, sanitary sewage disposal, sanitary garbage and refuse disposal, control of rodents, mosquitoes and other insects; (2) venereal disease control; and (3) the control of other communicable diseases. In appraising the public health needs of an area, the Liaison Officer receives the technical advice and assistance of the sanitary engineers attached to the Public Health Service

(over)

District in which the area in question is located. Such surveys are coordinated with the State and local health departments and recommendation for the correction of public health defects which may involve additional public health personnel or improvements of facilities and conditions are made to the State health department and Public Health Service District Office.

The most constant problem which calls for close cooperation between the military and civil health authorities is that of venereal disease control. The military personnel acquire their infections in the civil communities and there is consequently a continual flow of epidemiologic information between the Army stations and the health departments. In collaboration with the Service Command Venereal Disease Control Officer the Liaison Officer assists in maintaining as effective an epidemiologic program as possible.

Excerpts from LEADERSHIP

A

Manual on Conduct and Administration

By

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Chapter VI
RELATIONS WITHIN THE SERVICE

Relations with the bureau
Cooperation
Reports to the Bureau
Relations with the Commanding Officer
Relations with other Governmental Agencies

RELATIONS WITHIN THE U. S. PUBLIC HEALTH SERVICE

RELATIONS WITH THE BUREAU. From what has been said in the foregoing chapters, it must be evident to the reader that the Bureau is a large, impersonal organization having for its purpose the formulation of the policies of the Service, the maintenance of proper relations with the Department, the several executive branches of the Government, Congress, the general public and the various volunteer health and other scientific associations, the conduct and coordination of the functions of the Service, the management of its appropriations, and the maintenance of its internal discipline. The Bureau deals with broad general things, the field with details. It must recruit, train and detail its personnel and maintain the Corps in a state of mobility, so that it may be ready at all times to meet sanitary emergencies. Therefore, the viewpoint of the Bureau must, of necessity, be that of the forest as a whole rather than of the leaves. In their relations with the Bureau, officers will do well to keep this in mind. When first commissioned, a young officer is to the Bureau little more than a name, but as time goes on, he gradually acquires an individual reputation until his capabilities are pretty well known at Washington. If he is industrious, intelligent, loyal and cooperative, or if he is inclined to be lazy, lacking in initiative and dis-operative, the Personnel Division is fully aware of it. In other words, no officer can hide his real self.

COOPERATION. One of the best ways of acquiring a good reputation with the Bureau is to be thoroughly cooperative. When an officer is assigned to a given duty, he should always try to perform it better than the Bureau expects. As has been said in the preceding chapter, the Bureau does not give detailed instructions. It outlines a duty in a general way and expects the officer to work out and apply the details. Each such assignment is an opportunity to do good work and to add to the officer's reputation for thoroughness and accuracy. The officer must work with, i.e., cooperate with, the Bureau. This means that he must not "knock" the Bureau; above all, that he should never "buck" the Bureau. An officer may perhaps successfully "buck" the Bureau once, but rarely, if ever, the second time. He must never write impudent letters to the Bureau. Anything which he may have to say must be couched in respectful language and when the Bureau says "No", he must understand that the matter is closed.

REPORTS TO THE BUREAU. Officers in the field are the eyes and ears of the Bureau, and they should report promptly anything which concerns the Service. They should be especially careful that the information transmitted by them is accurate or, if there is a doubt as to its accuracy, this should be stated. A subordinate must always observe the greatest caution that he never lead his superior into an ambush. Half-information, unsupported rumors and hastily drawn conclusions should be reported as such or not at all. The greatest care should be observed in making reports which reflect on other officers. Generally, there are two sides to every piece of gossip, and officers should not say about another officer that which they would not like to have said about themselves.

RELATIONS WITH THE COMMANDING OFFICER. Officers are responsible for the official acts of their subordinates. They are therefore keen in judging their behavior. Junior officers may make or mar their reputations by their relations with their superior. Never "buck the boss"; always treat him with the utmost respect; try to find out what and how he wants things done; try to anticipate his wishes and commands and to cooperate with him in performing the duty in hand. An officer should never take the attitude "that isn't my job" or "that's not my responsibility." Always he should endeavor to exceed his bare duty and show initiative in what-ever he

may be doing. Many times a little ingenuity and a real desire for accomplishment may speed up the work and effect a great economy. These things should be done without being told, provided, that the officer is sure of his ground. He should therefore constantly study his duty, to improve the character of its performance and with a keen eye to economy in labor and money.

In his relations with superiors, he should be punctilliously respectful. He should always "sir" his superiors and he must scrupulously avoid any action or speech which may appear "fresh". He should not be familiar with his superiors and always he should endeavor to render himself invaluable to them. In doing this, he should never act in a way that will lead anybody to believe that he is "getting in a bootlick." Sometimes this is merited (the jealous have been known to make the observation), at any rate, it should be avoided. Little courtesies due to rank should never be forgotten. A senior passes through the door first, enters a boat last and leaves it first; in walking or in an automobile, the senior is always at the right; juniors salute first.

In the Public Health Service, salutes are reduced to the minimum, but when made, they should be snappy, with the fingers and thumb extended and close together, palm to the left, the wrist straight and the elbow raised. The right arm should be raised smartly, the portion of the visor above the right eye touched with the forefinger, and the hand dropped smartly to the side. The person saluted should be faced, and there should be no accompanying bow. All salutes should be carefully returned because they are a form of respectful greeting. Sloppy salutes and salutes while seated, or with one hand in the pocket should not be permitted. Salutes are not rendered with a cigar, cigarette or pipe in the mouth.

Officers boarding vessels for quarantine or immigration purposes should not, at any time, whilst they are performing that duty, have a cigarette, cigar or pipe in the mouth or hand. When boarding or leaving a naval vessel, officers should stop at the head of the companion ladder, face the stern and salute the flag. Both in and out of uniform, they should be especially careful to salute the unfurled colors when carried in procession. In leaving a naval vessel, the officer should say to the Officer of the Deck, "I leave the ship with your permission, Sir."

These are little courtesies which show that the officer is self-respecting. There are many others which he should learn by observation. For example, an officer in uniform should never carry an umbrella; he should not enter the office of a superior until bidden to enter and he should not seat himself therein until invited so to do; when his superior is standing, he should also stand; he should rise when a superior enters the room; he should be careful not to encroach on his superiors' time after the business in hand has been completed unless invited to; he should ask permission to leave the station, never announce that he is leaving; he should never keep a pipe, cigar or cigarette in his mouth while speaking to a superior; when passing a superior from behind, he should salute and say, "With your permission, Sir"; he should never wear his cap at an angle or on the back of his head; he should never speak to a superior in the third person; he should be deferential to the opinions of his superiors and should observe caution that he does not "speak out of turn."

SOCIAL RELATIONS. The etiquette of the Service is not different basically from the polite usages of community life. In view, however, of the intimate relations into which officers are thrown, it is necessary that they be scrupulously attentive to the rules of etiquette. Another reason, applying particularly to relations with outsiders, is the fact that an officer, as a representative of the President, is expected to maintain a high standard of social courtesy. "Courtesy among Officers is indispensible to discipline," and officers who are lacking in the social ameni-

ties are not only guilty of an infraction of the regulations, but are subjecting themselves to criticism and establishing a reputation which may do them and the Service harm in the future.

An officer reporting at a station should call socially upon the Medical Officer in Charge within the first week after so reporting. If the Medical Officer in Charge is married, the reporting officer, if married, should call with his wife. If the Medical Officer in Charge is not married, the call should be made by the reporting officer alone. It is not necessary or advisable to telephone first and ask if the Medical Officer in Charge will be at home, since this may hamper the movements of a superior officer. The call need not be a long one. The officer should provide himself with suitable, engraved calling cards. It is not customary for officers of a lower rank than Surgeon to place their rank on their calling cards, but the title "Doctor" and the name of the Service, unabbreviated, should appear on them. It will be found useful to have also a card for the joint use of the officer and his wife. This should read "doctor and Mrs.", followed by the officer's full name. Abbreviations should not be used on calling cards. The officer should leave cards for the Medical Officer in Charge and his wife and any other adult members of the family, and the reporting officer's wife should leave a card for the wife of the Medical Officer in Charge and any other ladies of his family. Calls may be made between five and six o'clock in the afternoon and between eight and nine o'clock at night or on Sunday afternoon. It is proper for the reporting officer to inquire if the wife of the Medical Officer in Charge has an at-home day, and, if so, the call should be made at that time.

There is considerable discussion as to who should make the first call, the newcomer or the older resident. It is the fixed rule in Washington that the newcomer should make the call, and while this rule obtains in certain other cities, in general, the older resident should make the first call. The newcomer should inform himself on the local customs. Single officers should always make the first call. Generally, all officers of the station and the adult members of their families call first on newly arrived married officers. In order that this may be done at an acceptable time, the newly arrived officer should inform the Medical Officer in Charge of his address, if he does not live on the station. The Medical Officer in Charge will transmit this information to the other officers of the station, in order that they may call. Such calls should be returned promptly. When an officer visits a station, he should call on the Officer in Charge and any other officers quartered thereon.

Courtesy calls should always be made within a week in acknowledgment of hospitality. If the officer is obliged to go away without making these calls, he should invariably send p.p.c. (pour prendre conge) cards. Better still, he should write a note of appreciation to his hostess. This should be written with pen and ink on personal stationary and should express regret at being unable to call before departure, making mention of the hospitality and courtesy he has received. This rule, if carefully followed, will make many friends for the officer.

It should be borne in mind that society is, for the most part, conducted on a quid pro quo basis, and that officers who accept hospitality and make no acknowledgment of it will soon find themselves left out of many social entertainments which might be the means of increasing their contacts and improving their acquaintance with older officers and their families. It is not expected that young officers will give elaborate return hospitality. The least they can do is to acknowledge by a call, cards or note that they have received this hospitality; better still, is to make some slight return of hospitality. A graceful and inexpensive way of acknowledging hospitality is to send your hostess a few flowers. It is very simple for the officer to invite his host and hostess to have tea with him, or if

he is so inclined, he may take them to the theatre. If the young officer is married, he may give some simple entertainment at his quarters. The point is that return of hospitality in kind is not necessary but that there shall be at least an acknowledgment, or better still, some slight return of hospitality for hospitality. If the officer is not prepared to do this, he should avoid accepting hospitality.

Social invitations should be answered promptly. If it later develops that the function cannot be attended, the hostess should be notified at once, in order that she may plan accordingly. All social engagements should be kept promptly. Officers are expected to arrive on time, no matter who may be late.

When in Washington, officers should call on the Surgeon General and his staff at their offices. An evening call should also be paid on them at their residences. In a foreign country, the officer should call on the diplomatic representative of the United States promptly after arrival.

A proper self-restraint in social gatherings is expected of gentlemen. Loudness, cock-suredness and noisy laughter are not good breeding. It is pretty generally believed that "a loud laugh bespeaketh a vacant mind". On the other hand, one should not maintain a clam-like silence and take no part in the conversation. It is expected that those who attend a social gathering shall contribute something to the pleasure of the occasion. An officer should avoid gaining a reputation of being a ponderous and difficult guest. "Shop" should not be indulged in and there should be no attemp to monopolize the conversation with long narratives or scientific discussions. Modern conversation is conducted on the principle that everybody shall be allowed to get in a short, snappy remark and then get out of the way and give somebody else a chance. It may offend an officer's scientific sensibilities to be expected to answer some professional question in a dozen words, but this must be done. Frequently the questioner has merely asked the question to made conversation and isn't interested at all in the reply.

As a social accomplishment, officers should be able to play cards and other social games, but always with good sportsmanship. They should not be greedy for winning or depressed at losing. Games are played for diversion. They are never serious affairs and it makes no difference whether a player wins or loses, since he should be playing solely for enjoyment. If a game is not worth playing for itself alone, it is not worth playing. Sportsmanship is an accurate character index.

RELATIONS WITH OTHER GOVERNMENTAL AGENCIES. The maintenance of cordial, cooperative relations with the other branches of the Government is a duty of all officers. In order to do this most intelligently, they should acquaint themselves with the functions and duties of each and establish friendly intercourse with their representatives wherever they may be stationed. They will find that they can secure very useful aid and advice from them and they should be able and anxious to reciprocate in turn. This cooperation not only will make their work proceed more smoothly, but it will also enable them to perform it at less expense. Socially, they will find much in common with other services and they should avail themselves of this opportunity.

When in a foreign country, an officer should establish cordial relations with the diplomatic and consular officers of the United States. If at the capital, he should call upon the United States Ambassador or Minister and the adult members of their families, as well as upon the American Consul and his family. This will not only be of very great official profit to the officer but will probably be the means of introducing him to the social affairs of the American colony. He should be particularly careful to inform himself as to the social usages prevailing and avail himself of opportunities to extend his social acquaintanceship, since, in this way much assistance for the work in hand may always be gained.

Excerpts from UNNUMBERED CIRCULAR
January 27, 1942
To: Commissioned Officers
Re: Uniforms, Courtesies

WEARING THE UNIFORM. The uniform is a symbol of a commission or other office in the Public Health Service. Because of the wide variety of their duties, Public Health Service officers frequently serve alone or in small groups and are in contact with the other uniformed services. Every officer should therefore present the best possible appearance.

It is the intent of the Uniform Regulations that the several uniforms prescribed conform to the design and standards of similar uniforms worn by commissioned officers of other Services, with the exception of the distinctive Public Health Service insignia.

Officers attached to or on duty with other services should wear the uniform of the day at the station or post to which they are assigned. Officers in charge of Public Health Service stations should designate the uniform of the day in general conformity to the customs of other services in the vicinity.

COURTESIES. A courteous manner of deportment is the true stamp of an officer and a gentleman. It is indispensable to discipline and to harmonious relationships. One accepted form of courtesy among personnel of uniformed services is the exchange of salutes. Salutes are exchanged in a prescribed manner of certain occasions as described hereinafter. It is important that officers of the Public Health Service master the simple rules in order to conform to military usage when visiting military and naval establishments.

Strictly speaking, the Public Health Service is not a military organization although a large number of its officers are on duty directly with the Army and Navy or in work closely associated with the military services. Service officers are commissioned by the President and constitute a uniformed commissioned corps whose organization and discipline are patterned along quasi-military lines. Officers are directed to pay the proper courtesies to officers of all other uniformed services and to acknowledge salutes and other courtesies extended to them by other personnel in uniforms.

The regulations governing courtesies and the customs of other services vary to a certain extent. The following instructions are prepared for the benefit of officers assigned to stations of the Service or to military establishments; officers detailed to Coast Guard or naval vessels should thoroughly familiarize themselves with requirements aboard ship.

FORMS OF SALUTES

1. Hand Salute. To execute the hand salute correctly, raise the right hand smartly until the tip of the forefinger touches the lower part of the headdress or forehead slightly above and to the right of the right eye, thumb and fingers extended and joined, palm to the left, upper arm horizontal, forearm inclined at 45 degrees, and hand and wrist straight; at the same time turn the head and eyes toward the person saluted. To complete the salute, drop the arm to its normal position by the side in one motion, at the same time turning the head and eyes to the front.

2. The salute by placing the headdress held in the right hand over the left breast. This is used under three conditions:

(a) At a military funeral, except in inclement weather when the hand salute is used, this salute is used whether in uniform or civilian clothes (b) In civilian dress, to salute the national anthem or the bugle call "To the Colors" and (c) To pay homage to the national flag or uncased colors.

WHEN TO SALUTE.

1. On military reservations, on streets, and otherwise outdoors, the salute is exchanged between enlisted men and officers and between junior and senior officers on each occasion of their meeting, except when they remain in the same vicinity. The salute is rendered within the distance in which recognition is easy. It usually does not exceed 30 paces. The salute is initiated by the junior when about 6 paces from the person saluted.

2. On naval or Coast Guard vessels, the captain is saluted on every occasion of meeting, passing near, or being addressed by the captain. Other officers are saluted on their first daily meeting or when passing nearby.

3. On Public Health Service stations, salutes are exchanged between officers during their first daily meeting, whether outdoors or indoors.

4. Sentries on duty with rifles, unless directed otherwise, salute by the movement "present arms." Officers return these salutes by the proper hand salutes.

5. Outside reservations, the customs of the armed services varies in different localities. Public Health Service officers should conform to the local practice. If in doubt, it is always safe for a junior to salute a senior officer of any service.

6. In passing organizations in formation, salutes are exchanged only with the officer in charge.

7. In the Army, upon reporting to a senior officer in his office, the headdress should be removed before entering and the salute rendered when about two paces from his desk.

Abstract of and Excerpts from Lecture on

FIELD RELATIONSHIPS OF THE NEW PUBLIC HEALTH SERVICE WORKER

by

Surgeon J. R. Heller, Jr.

"You new public health workers, doctors, nurses and engineers, have come here from all parts of the United States and will not know your assignment to a war area in some State until the latter part of the course. This is a time of "Orientation" for you as you enter a new governmental field of work. I should like to make a few suggestions taken from my experience and that of others to guide you as a new worker in a local health department in a war area.

"Always remember that the State health officer of the State to which you are assigned is your chief. You are responsible to him. He is vested with public health authority because the State is sovereign and whatever powers you may have in a local area come directly from him, not from the Public Health Service. When you go into a State, make it your first task to familiarize yourself with the laws, regulations and practices of that State. Become a part of it; since for all practical purposes an official should regard himself as an employee of the State and be loyal first of all to the local or State organization of which he is a part." When assigned to a local health department remember that probably there is a good reason why their practices are what they are. Be slow about making attempts to change or modify procedures. Gradually as those in charge come to have faith in you, you can make constructive suggestions which may improve the former practice. Above all things avoid political and controversial entanglements.

"Learn how to work with lay groups. It is wise constantly to maintain cordial relations with organized official and unofficial lay groups. If you become a local health officer, remember to keep the appropriating body informed at regular intervals of the status and progress of the public health program.

"Your relations with professional groups are very important. Become affiliated in the local medical society and endeavor to seek their active cooperation in the establishment of public health programs. Avoid controversies. Much of the difficulty encountered from these groups has resulted from their lack of understanding and information about proposed new work.

"You will, of course, in these critical war areas to which you go, have occasion to deal with the Army and Navy officials. Relationships with these agencies should always be routed through properly designated channels. Policies and procedures should be cleared definitely before entering into cooperative programs with these agencies. A Liaison Officer has been set up by the Public Health Service in each Service Command for the specific purpose of making possible prompt clearance of all public health matters between the local or State health department and the military services."

It is through your efforts that the Service hopes to render the necessary public health, nursing or sanitation service which the war area needs. The more you make a real effort to quickly adjust yourself to local conditions and become an essential and necessary part of the community, the greater success you are likely to have in the public health activities which you are endeavoring to carry on.

REVIEW QUIZ

First Week

Orientation Course - 1943

True-False Statements

If in your opinion the statement is true, encircle T; if false, encircle F.

1. T. F. There are only six divisions in the U. S. Public Health Service.

2. T. F. Funds for operation of U. S. Marine hospitals are derived from compulsory health insurance by pay roll deductions.

3. T. F. Merchant seamen and Coast Guard personnel receive medical care in the U. S. Marine hospitals.

4. T. F. The States Relations Division is the new name for the Domestic Quarantine Division.

5. T. F. The Division of Personnel and Accounts, which deals with financial and personnel matters, is directed by a layman skilled in business administration.

6. T. F. All the 48 States, the District of Columbia, Alaska and Hawaii are recipients of grants-in-aid to States under Titles V and VI of the Social Security Act.

7. T. F. One important duty of the States Relations Division is to participate in the Annual State Health Officers' Conference.

8. T. F. More than 700 commissioned officers are on duty with the U. S. Public Health Service Hospital Division.

9. T. F. A Public health nurse employed and paid by the U. S. Public Health Service in connection with the national defense program should send her reports directly to the nursing consultant in the States Relations Division of the U. S. Public Health Service.

10. T. F. Certification of water and milk supplies used on common carriers is a duty of the National Institute of Health.

11. T. F. The Social Security Act of 1935 did not provide funds for grants-in-aid to States for maternal and child health.

12. T. F. Public Health Reports is the monthly journal of the Public Health Service.

13. T. F. U. S. Public Health Service workers assigned to State work are directly responsible to the States Relations Division of the Public Health Service.

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14. T. F. The States Relations Division of the United States Public Health Service has the authority to go into any State, in the event of a serious epidemic, without a request from the State Health Department.

15. T. F. The United States Public Health Service was transferred from the Department of the Treasury to the Federal Security Agency, July 1, 1939.

16. T. F. Dr. Thomas Parran is Surgeon General of the United States.

17. T. F. Many administrative matters of the U. S. Public Health Service are handled through the nine U. S. Public Health Service Districts.

18. T. F. It is not the responsibility of the State and local health authorities to safeguard the health of the soldier when he is off the military reservation.

19. T. F. The U. S. Public Service is not interested in the development of strong local health departments.

20. T. F. The division of Sanitary Reports and Statistics maintains a press service and handles requests by mail for health information referred to the Service.

21. T. F. There are nine Service Commands of the U. S. Army in the United States to each of which is assigned an officer of the U.S.P.H.S. who is known as the "Liaison Officer".

SECOND WEEK

STATE AND LOCAL PUBLIC HEALTH ADMINISTRATION

Abstract of and Excerpts from Lecture on

THE STRUCTURE AND FUNCTION OF A STATE HEALTH ORGANIZATION

by

Dr. Harry S. Mustard, Director

DeLamar Institute of Public Health

Columbia University, New York, N. Y.

The Federal Constitution was adopted when the thirteen sovereign States worked out their relationships after the Revolutionary War. Under the Constitution the States retained within their respective borders the responsibility for the maintenance of public health. Responsibility and authority for action and service in connection with "health" were yielded by the States to the Federal government in the following four provisions of the Federal Constitution:

> Art. I, Sec. 8, Par. 1 - "The Congress shall have the power to lay and collect taxes, duties, imposts and excises to.....provide for the common welfare of the United States."
>
> Art. I, Sec. 8, Par. 3 - "The Congress shall have power to regulate commerce with foreign nations and among the several States and with the Indian tribes."
>
> Art. I, Sec. 8, Par. 17 - "The Congress shall have power over..... the seat of Government of the United States and over all places purchased.....for the erection of forts, magazines, arsenals and other needful buildings."
>
> Art. II, Sec. 2 - "He (the President) shall have power by and with the advice of the Senate to make treaties."

1. From the above it may be said that, except in certain Federal areas in the United States and interstate and international affairs, the responsibility for public health rests with the States and local government.

Massachusetts was the first State to establish a State Board of Health in 1869. In 1920, all the States had established some sort of State health organization.

Authority for State and local public health work is to be found in the following:

(a) The State Constitution
(b) Acts of the State Legislature
(c) Regulations of the State Board of Health
(d) City ordinances
(e) Regulations of local boards of health

(over)

2. The State health organization is usually a department of the State government. The executive officer of the State health organization is ordinarily designated as State Health Officer or Commissioner of Health. Most States provide a State Board of Health or Public Health Council. The functions of this board or council vary from place to place, are generally advisory, seldom administrative.

The State health organization is subdivided into a varying number of bureaus or divisions somewhat as follows:

1. Administration (including local health administration)
2. Acute Communicable Disease Control
3. Tuberculosis Control
4. Venereal Disease Control
5. Laboratories
6. Sanitation
7. Public Health Education
8. Public Health Nursing
9. Vital Statistics
10. Maternal and Child Hygiene
11. Others provided fairly frequently are Industrial Hygiene, Mental Hygiene, Cancer Control, Orthopedics, Adult Hygiene, Pneumonia, Food and Drugs, Malaria.

3. From colonial days, in the south the county has been the strong unit of government, whereas in the north the township has predominated. So, in the south public health work is built up strongly around the county as the unit, and public health activities are decentralized over the State. In the northern areas of the country, the State is utilized as the core of activity and public health work is highly centralized with local governmental health organizations comparatively weak and undeveloped. Each system has its advantages and disadvantages, and there are exceptions to this brief summary.

"As you leave the Orientation Course, you will observe for yourselves the public health practices in the State where you are at work and must fit into that pattern. In all of them you will do well to remember that the State is supreme, it is sovereign in the public health field.

"A Federal health officer, attached to a State or local health department, has locally only such authority as may be vested in him through temporary appointment to some State or local office.

"In health matters the Federal government is not superior to the State but operates in a separate field."

Abstract of and Excerpts from Lecture on

LEGAL THEORY OF FEDERAL-STATE PUBLIC HEALTH RELATIONSHIPS

by

Mr. Raymond Sawyer, Senior Attorney, Federal Security Agency
and
Mr. Stanley Drexler, Senior Attorney, Federal Security Agency

"It is interesting how when history starts to move, it takes everything with it....even the law. More often than not, the law is 'the tail of the kite.' Our system of law is the common man's check against autocracy. Indeed, it is perhaps the outstanding distinguishing thing between democracy and totalitarianism. It, unquestionably, is a part of the picture of the Federal Government and the States in action together to promote the public health.

"It was not until the yellow fever epidemic in New Orleans in 1853 that the first State Board of Health was created. About the turn of the century we find the public health forces of the nation organized on a State-wide basis. From the language used in Title VI of the Social Security Act of 1935, Congress apparently thought that there was still something to be desired along these lines. The Act originally authorized an appropriation of $8,000,000 a year, and this amount was subsequently raised to $11,000,000 by the 1939 amendments, for the express purpose of assisting States, counties, health districts and other political subdivisions of the States in establishing and maintaining adequate public health services, including the training of personnel for State and local public health work.

"The history of the public health movement is like that of our American industry and like that of our American government. It has grown up, like our American democracy from towns to counties, then to the States, and more recently to the Federal Government. And, of course, the law is coming up the same way. Only, it hasn't gotten here yet. This is true with respect to statute law (that made by legislatures and the Congress) and with respect to case law (that made by the judges)."

It is events and conditions which make law necessary. There is plenty of municipal, county and State public health law but not much Federal public health law. As long as the States and local boards perform most of the public health activity, the laws of public health will remain essentially with the States and political subdivisions of the States.

"Beginning after the World War and culminating in the Social Security Act, the local and State governments have continually looked more and more to the Federal Government for guidance and financial aid, (probably more for the latter than for the former.) What the future will be, I do not know, but it is likely that if the emphasis shifts to the Federal Government, the law will do likewise.

"It frequently is said that the Federal Government is a Government of enumerated powers. The State has all the powers of a sovereign. This means that the Federal Government has only such powers as the States have given to it, as set forth in the Constitution."

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"Our Federal Government is comprised of 48 individual, sovereign States.

"Turning to the Federal Constitution, it probably will come as a surprise to learn that there is no provision whatsoever expressly relating to public health. Knowing that the Federal Government is one of enumerated powers only and knowing that the Federal Constitution is silent as to public health powers, the Supreme Court might well have said, under our form of government, public health is entrusted solely to the States, and not to the Federal Government.

"Rare it is, I suppose, when men and women of science freely give credit to the lawyers. But here is an instance where you will all agree that the nine lawyers composing the Supreme Court of the United States have performed a distinct public service. These lawyers did not strike down every attempt of Congress to exercise a power not expressly given in the Constitution. Instead, they invoked the clause of the Constitution which gives Congress power to make laws necessary and proper for carrying into execution any of the powers expressly vested in the national government by Constitution.

"There are three major express grants of power under which it might be possible for the Federal Government to concern itself with public health:

(1) The treaty making power
(2) Common defense or the taxing power and general welfare
(3) Regulation of commerce

"Congress, through its acts, has confined the Federal Government to four principal fields of activity:

(1) Operation of Marine Hospitals
(2) Quarantine control (foreign and interstate).
(3) Research
(4) States Relations

The most impressive thing about the study of Federal legislation pertaining to public health is the extent to which Congress has leaned over backwards:

(a) To keep the Federal Government out of the actual day to day public health work
(b) To keep the public health worker under the control of the States and municipalities
(c) To make the Federal Government a center of research, a center for the exchange of ideas and a sort of overall adviser.

"Every person assigned by the Federal Government to the States or local governments to do public health work is subject to State law. The influence of the federally assigned official is supported, not by the strong arm of Federal law but by the ability of the official to get along and cooperate with the State and local officials. Much if not all of the past prestige of the Public Health Service in the field of Federal-State relations has been contained in the persuasive and cooperative powers of the Service rather than in its legal powers."

Abstract of and Excerpts from Lecture on

RELATION OF STATE AND FEDERAL GOVERNMENTS

by

Former Medical Director U. S. Public Health Service, Allan J. McLaughlin

(now retired)

"The ideal relation between Federal and State governments in public health work should be such as to insure the covering between them of the entire field of public health.

"The functions of the U. S. Public Health Service may be considered under the following heads:

1. Police
2. Investigative
3. Demonstrative
4. Coordinative"

1. Police Function:

"Police power resides in the States and has been given to Federal health authorities in but few cases. The quarantine laws of 1890 and 1893 are examples. They relate respectively to the prevention of the spread of cholera, yellow fever, smallpox and plague from one State to another; and in 1893, to all communicable diseases providing for cooperative activities with State and municipal health boards in the enforcement of State laws.

"For practical purposes, satisfactory results can be secured in most sections by utilizing State power alone, coordinated with the Federal service in a national program.

"The most effective means of preventing interstate spread of disease at the disposal of the Federal government today lies in the development and utilization in every State department of health of strong divisions for control of communicable diseases, water and sewage."

2. Investigative Function:

"The Act of 1912 authorizes the Service to study and investigate the diseases of man and conditions influencing the propagation and spread thereof, including sanitation and sewage, and the pollution directly or indirectly of the navigable streams and lakes of the United States.

"Under this broad authority, investigation of any phase of public health work may be undertaken. Availability of funds determines the rate of progress."

3. Demonstrative Function:

"Nothing compares in effectiveness with an actual demonstration of how work should be done in the individual communities. Congress has given specific authority for demonstrations in rural sanitation contingent upon partial support by State or local agencies."

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4. Coordinative Function:

"In achieving national success against any public health problem the coordinative function of the Public Health Service is perhaps the most important one. To secure the maximum improvement in our national health, some Federal coordinating agency is necessary in order to secure a synchronous attack upon any disease, with uniformity of method over the entire area of the United States.

"Public health work aims at the eradication of preventable disease, the elimination of corrigible physical and mental defects, and to achieve such aims demands a partnership with an exhibition of most perfect teamwork by Federal, State and local officers. There is ample precedent for this type of Federal cooperation with State and local authorities, as Congress has passed similar legislation covering good roads, vocational education and farm demonstration work."

Abstract of [illegible] excerpts from Lecture on

WAR TIME SANITATION ACTIVITIES OF THE PUBLIC HEALTH SERVICE

by

[illegible]. S. Tisdale, Sanitary Engineer, U.S.P.H.S.

The Sanitation Section of the States Relations Division has five main avenues of work (in normal times) - (1) Water (2) Sewage (3) Milk (4) Malaria (5) Rural Sanitation. The central office is located in Washington to which the calls for assistance from State and local health departments come. In each USPHS District Office is a branch sanitation section, with water, milk and sanitation experts, ready to give immediate service in any part of the United States. The Service in its cooperative and consultant sanitation work with States is greatly decentralized.

Let us glance briefly at the above five types of sanitation service which have been greatly expanded by the war effort -

1. WATER. Under normal conditions the Service, in cooperation with the States, examines the drinking water at over 2,000 places, division points on the network of railroad, airplane and bus lines over the United States where drinking water is taken aboard for use by the passengers. When every month the railroads move more than 1,000,000 troops from camp to camp or to embarkation points the importance of this safety program can be realized. Also the Public Health Service has had to act many times to safeguard public water supplies in the zones outside the Army camps where military forces congregate when on leave.

2. SEWAGE. In the 450 water activity areas around army camps and war industries, sewage disposal - either by sewerage systems and sewage disposal plants or by construction of sanitary privies has become of great importance. President Roosevelt foresaw the great sanitation need in these boom towns which developed over night like mushrooms and he asked Congress to appropriate money to provide "sanitary facilities" as well as schools, hospitals and health centers. Three hundred million dollars was made available and the Federal Works Agency was charged with building the necessary structures and the Public Health Service, through its District Offices, has, in cooperation with State health officials, ascertained and certified to the public health needs. In this way safe water and safe wastes disposal in these war areas have been brought about through helpful assistance to the local governing authority in towns and villages.

3. MILK. Our large army uses much more milk than any previous American army. It is the responsibility of the Public Health Service to see that local health departments bring milk standards up on the milksheds around army posts and have the milk pasteurized in modern equipment. The millions of civilians, wives, sweethearts and babies of the soldiers who live in these towns in the 25-mile zone near army camps and near war industries are affected by unsafe milk and improper food sanitation in restaurants. The work carried on by the late Sanitary Engineer Frank of the Public Health Service resulting in 2300 communities - most of them in the South - putting into effect the Public Health Service milk ordinance

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d code has meant the saving of much life in this war emergency. The only safe milk is a properly pasteurized milk.

4. MALARIA. The Army has declared war on the malaria mosquito, drains all ponds or quiet-water-breeding places or oils them to kill mosquito larvae, but this is not enough. The territory outside the Federal reservation is not under Army control. It is necessary for the Public Health Service, in cooperation with State and health departments to institute control measures in and around camps against the anopheles quadrimaculatus, or malaria-carrying, mosquito. Congress authorized the enlargement of the cooperative State and Federal malaria-control program and today over 5,000 workers are engaged in carrying on malaria control measures around the camps under Public Health Service technical supervision.

5. RURAL SANITATION. Much improvement to sanitation in rural America has resulted from the W. P. A. projects for building sanitary privies. Nearly three million homes now have improved excreta disposal from the nation-wide cooperative program carried on by the State Health Departments. This has resulted in lowering the hookworm incidence and the death rate from intestinal disease throughout the South.

Many of the sanitarians and sanitary engineers in this class, as well as the medical officers and public health nurses, will have occasion to stimulate the sanitary privy building program in the communities in which they work.

Sanitation is one of the outstanding problems in these war-activity areas - many times rural in character - where a great population influx has occurred.

You will find sanitary engineers in the district office of the U. S. Public Health Service willing to assist you, if their help is requested by the State Health Officer of your State. "Lanham Act" funds are being used to assist in improving sanitation in many local areas around Army camps and war industries.

Outline of Lecture on

PUBLIC HEALTH NURSING IN STATE AND LOCAL PROGRAMS

by

Anna Heisler, Public Health Nursing Consultant

U. S. Public Health Service

A. Public Health Nursing in a State Health Department

1. Administration:
The place of public health nursing in State Health Department organization, as of July 1, 1942, was as follows:

   a. Separate Bureau or Division of Public Health Nursing in State Health Department - 32
   b. Nursing director under Central Administration (no separate nursing budget) - 5
   c. Nursing a section under the Division of Local Health Work - 8
   d. Nursing a section under Division of Child Hygiene - 6

2. Personnel in the Public Health Nursing Unit:

   a. Director or chief
   b. Supervisors or consultants
   c. Educational director
   d. Staff nurses

3. Functions of the Public Health Nursing Unit:

   a. To assist the State merit system agency in defining the minimum qualifications for public health nurses.
   b. To assist the State merit system administrator in evaluating the qualifications of public health nursing applicants.
   c. To assist local health administrators, upon request, in selecting nurses from a list of approved applicants.
   d. To assist in recruiting promising nurses for employment in the State.
   e. To assist in the introduction of new nurses when necessary.
   f. To plan and direct a staff education program for the entire group of local public health nurses.
   g. To coordinate the nursing services offered by a State Health Department in order to avoid overlapping of services and to promote maximum efficiency.
   h. To advise the directors of the special divisions of the State Health Department on matters involving the services of public health nurses.
   i. To serve as the public health nursing representative of the State Health Department on various State and national boards and committees concerned with health and welfare problems.

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B. Public Health Nursing in a Local Health Program.

1. Administration:

a. Local health department with a full-time health officer.
b. Visiting nurse association or other private agency.
c. Board of Education.

2. Public Health Nursing Personnel in a Local Health Agency:

a. Director of Public Health Nursing.
b. Supervising Nurse.
c. Educational Director.
d. Staff nurses.

3. Functions of Public Health Nurses in a Local Program.

a. To make home visits for the purpose of giving bedside nursing care or demonstrating home care.
b. To assist the health officer and other physicians in teaching individuals and groups, at clinics and elsewhere, principles of healthful living, prevention of disease, and restoration to health.
c. To assist the physicians in conducting clinics of various sorts.
d. To cooperate with other health and welfare agencies toward maximum efficiency in meeting the health needs of the community.

Abstract of and Excerpts from Lecture on

LOCAL HEALTH DEPARTMENT ACTIVITIES

by

Dr. R. E. Fox, Director of County Health Work

North Carolina State Board of Health

In the local health departments, we find the trained persons who do the detailed medical, nursing, and sanitation work corresponding to the privates in the Army. These departments do the day to day work on the firing line in public health and are performing work in the home, school, and factory.

Brief mention will be made of the personnel in such local health departments with their duties.

In North Carolina, the personnel generally consists of five persons: 1. Health Officer; 2. Public Health Nurse; 3. Sanitary Officer; 4. Public Health Dentist; and, 5. Clerk.

Program planning is very important. The public health program must be planned by the entire staff--the nurses, the sanitation personnel, dentist and clinical staff contributing their part in working out the public health program for a given area, such program to be approved in its entirety by the health officer. The health officer, in addition to his administrative duties of public relations, office routine, budgets and general supervision of the entire program, has his professional duties, consisting of: 1. Health education; 2. Immunization, conduct of clinics such as maternity and infancy, Venereal Disease, Tuberculosis, Crippled Children, and eye; 3. Physical examination of children, teachers, and food handlers; 4. Special services - malaria, rabies, intestinal parasites; 5. Diagnostic services - isolation, quarantine, and release.

The public health nurse places first on her list public health education, for she is the avenue through which the health officer can bring about an understanding in the home of the entire disease - prevention program of the local health department. She has many duties, among which are included: 1. Prenatal, natal, and postnatal care; 2. Midwife supervision; 3. Infant preschool, school, and adult health; 4. Watching out for communicable disease, both in the school and home; 5. Nutrition; 6. Orthopedic services.

The public health dentist is not included in all local health departments, but this dental program has been emphasized in North Carolina. Here again education is stressed, and demonstration teaching is carried on by examinations and prophylaxis; corrections are made for under-privileged children under thirteen years; teaching classes are carried on with children in the class rooms and with adults in P.T.A. and community groups.

The sanitary officer is called upon for many miscellaneous services, but here again public health education is placed first. If the public does not understand why certain sanitation procedures must be carried out, doing those things will not become every-day habits with them.

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Among the tasks of the sanitary engineer and sanitarian are included: 1. Sanitary disposal of human wastes by construction of sewerage systems in towns or building septic tanks or privies in rural areas; 2. Safeguarding water supplies; 3. Supervision of foods and food establishments, including milk supplies; 4. Special services, such as malaria and rodent control, swimming pool sanitation.

The office clerk is the last of the five members of the local staff but not the least. She is the link with the public. She interprets the department activities to the public and distributes literature when mothers, children, dairymen, and others call at the office while the professional personnel is absent on field work. She generally handles the keeping of records of births and deaths. Also, she must be a good stenographer, be able to keep financial accounts, and do all manner of miscellaneous duties.

She is one of the most important members of the local health department, and care in the selection of a good clerk is very important. She is a vital factor in building GOOD WILL.

Abstract of and Excerpts from Lecture on

PUBLIC HEALTH LABORATORY AND ITS RELATIONS TO PUBLIC HEALTH

by

Dr. C. A. Perry, Chief, Bureau of Bacteriology, Baltimore, Md.

"The primary function of a public health laboratory is collaboration with medical and public health officials in the diagnosis and control of human illness.

"The purpose of a public health laboratory is not to make a diagnosis. That is the function of the licensed physician. The physician who fails to use laboratory service and depends entirely on his clinical observations jeopardizes the welfare and life of his patient.

"The isolation of the typhoid bacillus from the blood stream, the isolation of the tubercle bacillus from sputum or other body fluids are examples of laboratory findings which may be tantamount to a diagnosis.

"Control of disease is dependent upon correct diagnosis which in turn is dependent often times on laboratory findings."

In Maryland we operate through a system of branch laboratories to give service to all parts of this State which extends down the Chesapeake Bay and along the Atlantic Coast on the east, and into the Alleghany Mountains on the west.

"One important function of a public health laboratory is winning the support of the medical profession for the public health program as a whole. The general practitioner of medicine is actually the first line health official. Public health is dependent upon him in many ways. Many requests are made of the practicing physician in making out birth and death certificates, in reporting communicable diseases for which he usually receives no compensation. The laboratory gives him a diagnosis which he needs and wants. This is often the means of creating a friendly attitude toward the health department and securing his cooperation in the control of infectious diseases and his moral support in other activities of the health department."

Direct control of infectious diseases through laboratory aid in diagnosis of such diseases as diphtheria, amoebic and bacillary dysentery, gonorrhea, syphilis, malaria, epidemic meningitis, pneumonia, rabies, scarlet fever and other streptococcal diseases; tuberculosis, tularemia, typhoid, paratyphoid, typhus and spotted fever, undulant fever and other diseases is one of the main uses of a laboratory.

"Aside from this, an important function of a public health laboratory is the indirect control or prevention of disease by safeguarding the quality of products liable to transmit the infectious agents of disease. Of great importance is our milk and water supply. Constant supervision and laboratory tests on these are essential. The public health laboratory must examine foods other than milk, such as shellfish and crab meat and ice cream. Chemical tests are frequently necessary to determine proper pasteurization of milk, potency of drugs and freedom of foods from adulteration."

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The production of biologicals is also an important function of some laboratories.

The control of the efficiency of various types of laboratory work has recently become a function of public health laboratories. Control work has become a more and more important function of our Service. With ten branch laboratories working under the main Baltimore laboratory, coordination becomes an important problem.

A careful and systematic control system is the "sine qua non" of every dependable laboratory service. It is so important that the principle has been applied by the U. S. Public Health Service and by the States in evaluating serologic tests for syphilis.

Nothing is more important than our attitude toward public health as a whole. Never should we become engrossed in our work as health officer, engineer, nurse, statistician or laboratory worker that we forget our connection with this great enterprise.

In public health, we have many workers in federal, State and municipal organizations. In any one organization we have diverse services and interests. An important function of all the component parts of a large organization is that they function as a whole, that they are not suspicious of their fellow workers, but find in them co-workers and friends. We are all a part of a large public health service organization which has a high purpose and a splendid record of which we all feel very proud. Cherish and guard it zealously.

Abstract of and Excerpts from Lecture on

SOME PRINCIPLES IN HEALTH EDUCATION

by

Dr. Mayhew Derryberry

Health education has long been a major objective of public health but little concentrated work has been done toward achieving it. It was a thing everybody did "when they had time."

Effective health educational work has suffered from confusion of what is health education. Some think of it only as publicity; others as community councils and committees; others as publication and distribution of posters, pamphlets, etc.

Confusion arises from lack of understanding of the way people learn. We confuse teaching with learning. Health educators often overlook fundamental laws of learning in their educational work. Some of these laws freely stated are:

1. People learn only when they are interested. They are seldom interested in health; most are interested when they are sick. Ignoring this law may cause us to become: (1) policemen enforcing regulations or telling people what they must do, (2) [illegible] pushing our own interests to exclusion of the interests of the public, (3) wholesale distributors of health materials, or campaigners.

2. People learn by being satisfied from an experience. We must render our service so the patient is pleased with what he received. We must not over-sell a service that won't be delivered.

3. People learn by receiving the same advice from all sides. We must avoid giving conflicting advice to the people.

4. People learn by example. We must practice what we preach.

5. People learn from every experience even though intentional teaching may not have been done. If their experience was satisfying, they appreciate the service and will return: if unsatisfying, they will avoid future contacts.

DISCUSSION AND ASSIGNMENT OF WAR AREA PROBLEM

The class has been divided into several groups who should consider themselves health departments, composed of doctors, nurses, engineers, laboratory workers, and a clerk. We hope that you will democratically elect a discussion leader, and will each participate in working out a solution of these war area problems, descriptions of which have been given to you. As you meet together from day to day, you will apply the techniques and data, gleaned from the lectures in this course, in the fields of sanitation, venereal diseases, public health nursing, industrial hygiene, etc., and, in particular, we wish you to set forth the specific manner in which you will use the practical suggestions in community organization given by Dr. Morgan. All members of the group will participate in the planning just as you are expected to do in your health department staff meetings. At the close of the course, each two groups with the same problem will competitively present their solution before the staff and the rest of the class, who are expected to criticize constructively the presentation.

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The attached detailed description of a war area describes emergency situations typical of the ones into which you will be sent when you have completed this orientation course. To give you experience in solving the problems you will encounter in the field, you are asked to discuss this problem within your group and to show how you would adjust the existing program to cope with the situation. Emergencies always require increased intensity of work, adjustment of program and careful planning to assure maximum efficiency. You are, therefore, expected to plan a distribution of the available time of the personnel now employed by the health department among the various health activities. For example, if you plan to increase the Venereal Disease clinic sessions, where will you get the addtional medical and nursing time? Will you reduce the school examinations, eliminate certain maternal and child health conferences, or how?

After you have worked out the time distribution of the present personnel assume that a physician, a nurse and a sanitary engineer from this class were assigned to the department. What activities would you assign to them? Would new activities be undertaken? What would the change in distribution of activities among the original staff? Be prepared to give reasons for your dicisions.

WAR ACTIVITY AREA PROBLEM

Industrial area in Illinois - Shipyard adjacent to small town surrounded by rural area.

Per capita income - Moderate

Population of area - 1940 - 4,200
1942 - 9,000

Schools - 1 high school
1 elementary school

Doctors - 2

Dentists - 1 (1 lend-lease dentist to be provided by U. S. Public Health Service)

Midwives - 4

Hospitals - 1 - 40 beds (7 miles distant)
1 - 100 beds (13 miles distant)

Churches - 3

Health Department - No full-time county health department (part of a State district health department comprises 3 counties)

Local per capita expenditures for health - zero. State law prohibits county levying a tax for local health services.

A city of 25,000 in the same county has a full-time progressive city health department with a large full-time staff including physicians, engineers, and other full-time personnel.

Voluntary health agencies - None
No visiting nurse association.
No other community organizations.

Typical problems
Shortage of medical and dental services.
Housing shortage (Federal Public Housing Authority has programmed 350 family dwelling units, 288 dormitory units and 204 war apartments for the area, most of which are already occupied. There are also 250 FPHA trailers in town.)
Environmental sanitation
Sewage disposal (open pit privies)
Garbage disposal - none
No food or milk control.
Transportation facilities not adequate.

Abstract of and Excerpts from Lecture on

COMMUNITY HEALTH EDUCATION PLAN

by

Dr. Lucy S. Morgan, Health Education Consultant, U.S.C.H.S.

As the first step in organizing a community health education program I would suggest that a survey of the community be made which would show all the assets lined up against the health problems.

In the asset column my #1 item would be the names of useful people. I am convinced that people are the greatest asset that the field of health education has. Not only the professional workers who represent agencies but all persons who are capable of leadership and group thinking.

I would put as the #2 item in the asset list the tools of health education, the number and location of each, i.e., newspapers, radio stations, motion picture machines, film strip and slide projectors, films, film strips, pamphlets and leaflets of all kinds, house organs and magazines.

Third on the asset list I would check groups. What groups do people meet in naturally -- professional, labor, church, nationality, young peoples, etc.? It is important that groups be recognized as groups and not because of their particular affiliations. Programs to be effective must be taken to groups in their natural settings so that education may become a part of the every day routine.

Fourth on the asset list would be meeting places. Where do people meet when they get together?

Fifth, I would list possible sources of funds for additional materials, workers, etc.

Against these assets I would line up all the health problems of the community for these are the talking points to be used when contacts are made with persons selected to help put the program across.

And now it's time to review the assets and problems and take the second step -- make some sort of a plan and put it down on paper. But first you must decide whether the purpose of your program is to reach the entire community or certain individuals with health information or whether you want action on some specific problems. How do you plan to reach these persons? Can the community be divided into areas or districts or will the attack be an over-all one?

Next comes step three. Select (on paper) a working committee or council of those individuals who are or should be interested in community health problems. Then contact each individual personally and sell him on the plan by presenting the problems and asking for help in solving them. (If the sales job is a good one each individual concerned will think the community plan was his own bright idea.) When the entire committee (before it is formed) has been sold individually on the idea it is time

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Abstract of and Excerpts from Lecture on

FIELD RELATIONS IN MILK SANITATION

by

M. M. Miller, B.S., M.S., Milk Specialist

U. S. Public Health Service District No. 2, Bethesda, Md.

The U. S. Public Health Service Milk Ordinance and Code is our "Milk Bible." To bring the little volume into being the sponsor, the late Senior Sanitary Engineer, Leslie C. Frank, has literally gone down "into the Valley of the Shadow of Death."

My personal experiences over the United States in the past ten years in bringing communities to a realization of the need for grading and labeling milk according to its sanitary quality, have led to certain procedures in the field of applied milk sanitation of which a few will be mentioned.

"The first requisite in obtaining milk sanitation is a definite, feasible, workable program. The program on which a milk sanitation project is built is comparable to the blueprint which is used as a guide by the architect in the construction of a beautiful building or a bridge. The blueprint is made first. That is the guide. If it is right and its interpretations are right, the resulting product of the labor will be right. So it is with milk sanitation. 'The' Milk Code is our blueprint since it combines the technical knowledge of the ablest experts in the United States in the milk field, and sets forth a practical plan of application of the principles of proper milk sanitation so that the farmer or producer is rewarded with a high grade if he uses basic sound principles and his grade is lowered as he fails to do so. The grades are placed on the milk container and the general public becomes the enforcement agent for carrying the milk sanitation to a successful conclusion by choosing the high grades and discarding the low ones.

"Beside providing a protection to the better dairymen, such as a system of grades lends itself admirably to complete and effective enforcement, for unless the high standards once attained are maintained, the dairyman will lose his coveted rating through the inspecting officer. This not only touches his pocketbook, but hurts his pride, which is a far greater weapon than a small fine or a short embargo.

"Milk sanitation from the standpoint of public health is for the purpose not only of improving quality, but to increase safety. In this regard it should be constantly borne in mind that the only safe milk is a high quality raw milk which has been either properly pasteurized or boiled. Pasteurization does not improve poor milk, nor does it make 'bad' milk good. It doesn't make dirty milk clean. All that pasteurization does, and all that it is intended to do, is to make milk safe. There are some ten diseases transmissible through milk which appear in epidemic form, such as typhoid fever, diphtheria, scarlet fever and septic sore throat. Everyone of these organisms is destroyed in the process of proper pasteurization.

"Qualified inspectors working full-time in State and local health departments are essential for the success of any milk sanitation program."

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"The milk inspector must have the full support of the health department and the project must have the support of public opinion. The sanitary status of a milk supply will be in proportion to the demands of the people for good milk. Any project must be popularized and for this a favorable press is indispensable. Every health worker should have some knowledge of the principles of publicity.

"It is only when we join hands with the institutions of higher learning and the people in their extension service; with the sanitary engineer and the veterinarian; with the public health official and the public health nurse; with the women's clubs and civic organizations; it is only with the support and hearty cooperation of practicing physicians who realize the significance of 'GRADE A PASTEURIZED MILK' and the seriousness of milk-borne epidemics that we can go forward. Cooperation is the keynote and progress the objective, however it may be obtained."

Abstract of and Excerpts from Lecture on

THE PASTEURIZATION OF MILK[1]

by

P. A. Sanitary Engineer (R) John Andrews, U.S.P.H.S.

The public-health significance of pasteurization has been ably expressed by Doctor Rosenau: "Next to water purification, pasteurization is the most important single preventive measure in the field of sanitation."

Although Pasteur did not originate the pasteurization of milk, the process which bears his name was based on his work during the period 1860-1870 on the heating of wine and beer. It may be of interest briefly to mention some of the milestones in the development of modern pasteurization.

1873 - Jacobi, in New York City, advised the boiling, in the feeding bottles, of milk for infants.

1886 - Soxhlet, in Germany, devised an apparatus for sterilizing milk in baby bottles in the home. Boiling for 40 minutes was advised.

1893 - Nathan Straus, in New York City, opened the first of many infant milk depots for dispensing sterilized milk.

1890-1905 - Milk industry developed continuous-flow milk heating apparatus. Temperatures ranging from 158° F. to 185° F. were used, with indefinite, if any, holding times, and inaccurate controls; this was "flash pasteurization." Prevailing opinion among medical profession and health officials was that pasteurization was an undesirable commercial process intended only to delay spoilage.

1895 - Monrad, in Denmark, recommended the holding of heated milk in tanks for 30 minutes or more. Suggestion was not adopted.

1903 - Work of Park and Holt in feeding tenement house babies on raw and pasteurized milk.

1906 - Rosenau, then Director of the Hygienic Laboratory of the U. S. Public Health and Marine-Hospital Service, determined the thermal death points of milk-borne pathogens, finding that 140° F. for 20 minutes was just sufficient for the destruction of the most heat-resistant one--the tubercle bacillus. This work, and that of other investigators, inspired confidence in such low temperatures for pasteurization and was the foundation for the subsequent general acceptance of the process by health authorities.

1907 - The first apparatus for pasteurizing milk by the holding method on a commercial scale was installed in New York City, after North, in 1906, had revived Monrad's suggestion. Milk was heated to 140-150° F. and held for 30-45 minutes. The use of pasteurization increased rapidly during the following years.

1922 - The "Endicott Experiments", conducted at Endicott, N. Y. by a large group of experts, showed numerous engineering defects in commercial pasteurizing apparatus, but confirmed previous work on the thermal death times of milk-borne pathogens.

1926 - Leslie C. Frank and associates in the Office of Milk Investigations, U. S. Public Health Service, began researches into the efficiency of commercial pasteurization equipment; this work emphasized corrective measures and was the basis for the present equipment specifications of the U.S.P.H.S. Milk Ordinance and Code.

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[1] Based on lecture formerly given by Sr. San. Engr. F. J. Moss, U.S.P.H.S.

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1927 - U. S. Public Health Service began researches on high-temperature short-time pasteurization in cooperation with other health agencies.
1933 - Definition for high-temperature short-time pasteurization first included in U.S.P.H.S. Milk Ordinance. This method is not synonymous with the old, discredited "flash" method.

Pasteurization is defined in the ordinance as the heating of every particle of milk or milk products to at least 143° F. and holding thereat for at least 30 minutes, or to at least 160° F. and holding thereat for at least 15 seconds, in approved and properly operated equipment.

The following table is a summary of the milk-borne disease outbreaks reported by State and local health authorities as having occurred in the United States during the years 1923-1941, inclusive:

Disease	Outbreaks	Cases	Deaths
Typhoid fever	419	6,939	518
Paratyphoid fever	25	1,053	22
Scarlet fever and septic sore throat	188	17,891	182
Diphtheria	15	215	7
Dysentery	16	1,317	20
Food poisoning and gastroenteritis	107	4,672	6
Undulant fever	20	172	1
Miscellaneous	12	525	2
Total	802	32,784	758

The above data are incomplete, since not all outbreaks and cases are reported, and since several milk-borne diseases do not usually occur in epidemic form. The great majority of the outbreaks and cases were from raw milk and milk products. The value of pasteurization in preventing disease has been clearly proved by experimental work, by epidemiologic and statistical methods, and by animal experimentation. It has been clearly proven to be economical, practical and feasible. The objections that have been raised to pasteurization may be summarized as follows: (1) a poor grade of milk might be used, (2) the flavor might be impaired, and (3) the nutritive value might be significantly reduced. All these objections are unsound.

The use of pasteurized milk has steadily increased, and in American urban communities of over 1,000 population in 1936, 75% of the market milk was pasteurized. For cities of 500,000 and over the percentage was 97.5%; for cities of 10,000 and over, 83%; for cities of 1,000-10,000, 39%; and for communities 1,000-2,500, only 24.5%. The great majority of milk-borne disease outbreaks occur in the small communities having a low percentage of milk pasteurized and inadequate sanitary control of the milk supply.

The Public Health Service recommends, without qualification, that all milk should be both properly produced and properly pasteurized or boiled before consumption.

Abstract of and Excerpts from Lecture on

FOOD AND RESTAURANT SANITATION

by

S. H. Hopper, Ph.D.

University of North Carolina, Chapel Hill, N. C.

Objectives in food control are protection against infection, contamination, adulteration and harmful chemicals. The program has two aims, prevention of disease and promotion of good health by proper body building foods.

The largest recent outbreak of disease from infected food was in 1939, when 609 cases of bacillary dysentery occurred.

Possible causes of injury due to foods are: (more important causes are underlined)

a. Natural poisons (poisonous mushrooms)
b. Animal parasites (trichinosis from improperly cooked pork containing trichinae)
c. Bacteria (T. B. or typhoid)
d. Bacterial poisons (botulism)
e. Ptomaine poisoning (decomposition of protein)
f. Accidental poisons (arsenic-sodium fluoride)
g. Composition of food - lack of vitamins.
h. Allergy - (sensitivity of person to certain foods)

Relationships between Bacteria and Food Sanitation:

1. Syphilis or Gonorrhea - may be spread by infected food handlers.
2. Diseases of Digestive Tract - may be spread by failure of employees to wash hands after toilet use.
3. Nose and throat group of Diseases - may be spread by unclean utensils or by exposure to coughing and spitting.
4. Diseases carried by insects and animals - may be spread by contact. Poor refrigeration is one of the outstanding public health hazards. Pasteurized milk is just as nutritious as raw milk, the only vitamin affected being C of which there is only a small amount in milk, and pasteurization only an added safeguard.

Common deficiencies found on inspections:

1. Ignorance of restaurant managers of regulations and proper methods of cleanliness. Education through short schools a good approach.
2. Health cards frequently a mere formality and hence useless as public health protection.
3. Sanitation defects, lack of cleanliness, no screening, unsatisfactory storage of food.
4. Wash water temperatures too low.

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SUMMARY

Ways in which diseases may be spread due to improper food and restaurant sanitation:

1. Unclean glasses, dishes, silverware-exposure of food to coughing, sneezing, and spitting.
2. Use of common cups, towels, and toilet articles by employees.
3. Failure of employees to wash hands thoroughly after each visit to toilet.
4. Employment of people who are carriers of disease, that is, people who may not feel sick but secrete disease germs and spread them.
5. Use of ungraded milk and milk products.
6. Lack of screening and exposure of food to flies.
7. Improper washing, preparation and refrigeration of foods.
8. Use of uncertified oysters.
9. Improper storage of food, lack of rat and roach control.
10. Use of contaminated water in homemade drinks.
11. Plumbing and water supply incorrectly connected.
12. Cleanliness of prime importance, that is plenty of soap and hot water, and good housekeeping.

Abstract of and Excerpts from Lecture on

RURAL SANITATION

by

Assistant Sanitary Engineer C. H. Atkins

Sanitation Section, U. S. Public Health Service

Rural sanitation is the maintenance of a sanitary environment for the rural population, which is so located that usually each home must be served by separate water supply and excreta disposal facilities.

The Rockefeller Sanitary Commission, one of the first organizations to start rural sanitation work in America, was established in 1909 for the purpose of combating hookworm disease. The hookworm control program was subsequently carried on by this Commission, and also the U. S. Public Health Service and State boards of health after 700 counties in eleven southern States were surveyed. The program consisted of the construction of sanitary privies and giving medical treatment for hookworm.

In the widespread rural sanitation program carried on through eleven southern States by the U. S. Public Health Service in cooperation with State boards of health, the earth pit privy was found most practical. Soil pollution was prevented, fecal matter was prevented from being scattered through the neighborhood and thus hookworm typhoid fever and dysentery were sharply reduced in the populations in those areas where sanitary privies were built and properly used.

In December 1933, C.W.A. was inaugurated to relieve unemployment and under the C.W.A. and W.P.A. programs the Public Health Service assisted the State health departments in a nation-wide rural sanitation program, which greatly reduced intestinal diseases in rural America.

Approximately 3,000,000 sanitary privies were built in 38 States. This was a very large construction program, calling for one billion board feet of lumber and over six million bags of cement and other large amounts of materials, totaling over 110 million dollars, of which the property owner paid approximately 50%. In spite of this comprehensive program of sanitation improvement much work remains to be done. Careful studies indicate that approximately four million homes in rural America lack sanitary excreta disposal facilities at this time.

The importance of rural sanitation in reference to military forces and industrial workers has been recognized by the U. S. Public Health Service.

Reconnaissance surveys by the Service in 468 war-activity areas revealed that 165,000 sanitary privies are needed in these localities as well as 135,000 sanitation improvements to private and semi-public water supplies; to make sanitary facilities available for the war workers and soldiers which frequent these areas. A start has been made through the use of Lanham Act funds, to improve these insanitary conditions, in these war-activity areas.

The Public Health Service has assigned many sanitary engineers to assist State and local health departments in these war-activity areas. These engineers and sanitarians are endeavoring to have septic tanks and privies built and sanitary improvements to water supplies made, through education, salesmanship and the enforcement of sanitary laws.

"The majority of State health departments have developed plans and specifications governing the construction of septic tanks and sanitary privies. The construction of these facilities in war areas must be done in accordance with State requirements. Those sanitary engineers and sanitarians who promote and supervise this work in war-activity areas should thoroughly acquaint themselves with State and local sanitary laws and be guided accordingly."

The Public Health Service is planning to assist State and local health departments in working out as promptly as possible practical solutions for improved sanitation in rural areas, both during and after the war.

Abstract of and Excerpts from Lecture on

COMMUNITY FACILITIES UNDER THE LANHAM ACT

by

Dr. Hoge and Mr. Boyce

At the request of President Roosevelt in the Spring of 1941, 300 million dollars was appropriated by the Congress as Title II to the Lanham Act to provide "Community Facilities." The President described the need for such facilities as follows:

"Military and Naval strategy has been the controlling factor in determining the location of many new defense establishments. As a result, posts and plants have been necessarily located near communities without adequate public facilities and services for the large numbers of workers who arrived to construct them and who will be needed to operate the new establishments. There have been shortages of housing, insufficient water supply, sewerage service, sanitary and health facilities, overcrowding of transportation services and inadequate recreational facilities."...

The Federal Works Agency was designated as the Federal Agency with the responsibility of building these needed community facilities. The U. S. Public Health Service was set up as the official agency to certify as to the public health need for needed hospitals, health centers, water supplies, sewage and garbage disposal facilities. In actual practice, the regional offices of the Federal Works Agency work closely with the director and staff of the U. S. Public Health Service district offices. The State Health Departments in turn make available much data concerning the local water or sanitation situation, and the medical and hospital needs to the district offices.

The application for federal financial assistance is generally filed by the local community.

"The program of assisting communities in improving public facilities involves grants, loans, and federal construction. Most hospitals financed entirely by the Federal Government are considered as federal projects and the title of the property is retained by the Federal Government."

The building of hospitals in these war-activity areas or the enlargement of hospitals in near-by communities has experienced several set-backs since the necessary priorities for critical materials could not be obtained from the War Production Board, on account of the demands of the armed services.

The health centers, being of simpler design and calling for less critical material, have fared better on the whole, and many of these in the South, Southwest, and Middle West have been completed, are staffed and are giving splendid service to the communities over-burdened by the great influx of new people serving a near-by Army camp or air field, or a war industry. Over 50% of the funds allotted to communities have been for extensions and improvements to public water supply and sewerage systems, sewage and garbage disposal plants, and a large number of these new community facilities are now in operation.

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The U. S. Public Health Service has been active in assisting these communities to provide essential public health and sanitation services. Early in 1940, it sent teams of medical and engineer officers, from the central and district offices, into the field to report upon the needs. The reconnaissance surveys made during the early days of the national defense program formed the background for determining the amount of money needed in each community.

The Public Health Service district offices work in close cooperation with the states, cities, and counties in their district. The doctors, nurses, and engineers have followed through closely during the past three years until the proposed improvements were completed.

It is interesting to note that in some communities, for instance in Wichita Falls, Texas, where the state, city, county, and Public Health Service cooperated in setting up a new Health Service where formerly none existed, this "Community Facilities" program provided a splendid, modern Health Center centrally located in Wichita Falls. It was completely equipped, and the Public Health Service supplied the professional personnel, that is medical officer, nurse, engineer, V. D. officer and laboratory worker to operate the department. Such programs as this are benefitting many war-activity areas. Early in 1940, there were 40 critical defense areas, but now in 1943, there are 468 war activity areas. The Community Facilities and Orientation Course programs of the Public Health Service are making it possible to build up the necessary public health and sanitation services for these cities and towns where the population increase has been great.

REVIEW QUIZ

Second Week

Orientation Course
True-False Statements

If in your opinion, the statement is true, encircle T; if false, encircle F.

1. T. F. Vaccination against smallpox gives positive protection for a lifetime.

2. T. F. Communicable disease control, public health nursing, sanitation and laboratory are four essential activities of the State Health Department.

3. T. F. The anopheles quadrimaculatus mosquito plays an important role in transmitting malaria.

4. T. F. Quinine and atabrin are useful in the treatment of malaria.

5. T. F. All county health department budgets include contributions from local, State and federal sources.

6. T. F. The State is sovereign in matters of public health.

7. T. F. The Foreign Quarantine Division of the U.S. Public Health Service acts to prevent entry into the United States of: cholera, typhus anthrax, malaria, and pediculosis.

8. T. F. In peace times "radio pratique" places the responsibility on the shipping company and the ship's medical officer for clearance.

9. T. F. Certified milk is safer than pasteurized milk.

10. T. F. Milk sanitation is one of the duties of the District Office of the U.S. Public Health Service.

11. T.F. Public Health nursing was the forerunner of organized services in many rural communities.

12. T. F. There are four major grants of power under the Constitution affecting the public health: 1. War; 2. Treaty making; 3. Taxing; 4. General welfare.

13. T. F. Malaria is a problem of negligible importance in the United States.

14. T. F. Since the health officer is the director of the local health unit, he has sole responsibility for outlining the program for the health department.

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15. T. F. An understaffed local health department cannot afford to take time to hold periodic staff conferences.

16. T. F. Interest on the part of the learner is one of the indispensable essentials for successful teaching.

17. T. F. Funds from the $11,000,000 provided by Congress under Title VI of the Social Security Act for the fiscal year 1943 are allotted by States to local health departments.

18. T. F. Congress has leaned over backwards to keep public health work under State and local control.

19. T. F. The U. S. Public Health Service is not the agency certifying to public health needs for approval of Community Facilities projects under the Lanham Act.

20. T. F It is not necessary to have children vaccinated against smallpox in a community that has been free of smallpox for five years.

21. T. F. Activities in local health departments receive less supervision from federal and State health departments than before the passage of the Social Security Act in 1935.

THIRD WEEK

VENEREAL DISEASE

INDUSTRIAL HYGIENE

SANITATION

FOURTH WEEK

SPECIAL PUBLIC HEALTH PROBLEMS

Abstract of and Excerpts from Lecture on

VENEREAL DISEASE CONTROL

by

R. A. Vonderlehr, Assistant Surgeon General in Charge

Division of Venereal Diseases - U. S. Public Health Service

The Venereal Disease Control Act, passed in 1936, which now makes available $12,500,000 made possible real cooperative efforts between the U. S. Public Health Service and the State health departments in venereal disease control.

Shortly after the passage of the Act an Advisory Committee to the U. S. Public Health Service was appointed to assist and guide in developing the best practice, and in making changes from time to time, as research work pointed the way.

A copy of the report of this Committee will be furnished to you. I shall simply review these plans briefly with you, as they pertain to certain essential elements which we feel should be included in any program, in which Federal aid is requested by the State health department.

We are making material progress in the control of syphilis, and with the aid of the sulpha drugs, tremendous advances should be made in controlling and reducing gonorrhea.

A word about administration in a State health department. We feel that Venereal Disease Control work should be the function of a separate division in a State or large municipal health department. In the carrying on of the work, it is wise to secure the advice and assistance of a local or State committee.

Adequate morbidity reports should be secured. The report of the committee sets forth the specifications on report forms.

Adequate and universally available laboratory service for dark field examinations and serologic tests and for microscopic and cultural examinations for the gonococcus is essential. The Public Health Service is now setting up rapid treatment clinics, one of them in connection with a hospital treatment center in Chicago. No final recommendations have been made on rapid treatment yet.

With respect to treatment facilities, clinic service should be provided without cost for (a) the diagnosis, and emergency treatment of all persons who apply; (b) all patients referred by private physicians and (c) all patients unable to pay for private medical care.

With reference to clinics, it is important that they be conveniently located and easy of access. Clinics should be held in clean, well lighted and well ventilated rooms, so located and arranged as to offer privacy.

In reference to the distribution of drugs it is recommended that at least two of the common arsenical preparations should be distributed without cost to physicians and all other medical agencies authorized by law to administer drugs in the treatment of syphilis.

(over)

Sulphathiazole should be distributed to every public clinic for the treatment of gonorrhea. Purchased in quantity, this drug is relatively inexpensive, is very efficacious and is essentially devoid of untoward reactions within the dosage limits necessary to cure the patient with gonorrhea.

The venereal diseases belong in a category of communicable diseases and every new patient admitted to a treatment service offers a double challenge in case finding and case holding. The Committee report sets forth recommendations for successful techniques in this important field.

The understanding by the patient of the nature of the venereal diseases and an informed public opinion are essential for a successful venereal disease program.

Local health departments are finding lay workers may be trained and used for follow-up and in educational programs. They are very helpful, if these persons are selected for their ability to get along with other folks and do a convincing job of selling.

The committee report goes into detail on the questions of prophylaxis and also the role of prostitution in the spread of venereal disease.

Your attention is directed to the joint policy agreement, to which the Surgeons General of the Army, Navy, and U. S. Public Health Service have adhered in dealing with the involved problem of prostitution.

An example of success in applying this principle was recently reported in the Washington Post, by Miss Agnes Meyer, writing from Seattle, Washington. This article has been quoted since it typifies the kind of joint program which the military forces, the U. S. Public Health Service State and local health departments, the American Social Hygiene Association, and the Federal Security Agency are carrying out with considerable success in the war areas over the United States.

Abstracts from Article - Washington Post, April 1, 1943

ARMY, NAVY, PUBLIC HEALTH SERVICE AID LOCAL

GOVERNMENTS IN FIGHT OF RACKETEERS

by

Agnes E. Meyer

Seattle is fighting a major battle of its own, a battle that is one of the most important issues on our social front - the battle for suppression of prostitution, as the prime factor in the control of venereal disease. This battle is being waged throughout the country, but it is highlighted in Seattle because the allied powers on both sides are strong and both are determined to win.

On the one side are arraigned in close formation the representatives of the United States Public Health Service, the Army, the Navy, the State, city and county health departments, whose campaign is spearheaded by Seattle's intelligent and fearless young reform major, William F. Devin. On the other side are the invisible, nameless, but no less powerful underworld forces, the leeches, panderers and racketeers, as firmly entrenched here as in many of

our big cities, that never fight in the open, but work relentlessly to keep their hold on the rich graft to be derived from the prostitution racket.

Before the war Seattle had always been a wide-open town. It is a young city that had its first boom when Alaska struck gold.

As the only port north of the Golden Gate, our most important West Coast naval station was placed just across Puget Sound. In addition to our bluejackets, sailors of every nationality streamed in and out of the busy harbor.

This was the free-and-easy atmosphere that built up a lucrative back-street business for the dubious elements that profit in one way or another from prostitution. These forces of darkness took care to spread their usual propaganda that it is better to concentrate the illicit sex trade in houses of prostitution, in order to keep it from spreading all over the town. Many of Seattle's estimable citizens learned to close an eye to what they considered an unavoidable evil, thereby unconsciously strengthening the hold which the vice traders had upon the city.

But the underworld failed to reckon with Col. A. P. Clark, who came to Fort Lewis in October, 1940, as commanding officer of the hospital, senior surgeon of the Army post, and venereal disease control officer for the Puget Sound area. By January, 1941, with only the first nucleus of troops in camp, 150 new cases of venereal disease were reported at the camp hospital, and in spite of all efforts at prevention through prophylactic stations, thousands of treatments were necessary. Colonel Clark went into action. He carries a multiplicity of duties, but he never has delegated this broad program for the control of venereal disease to anyone else.

When he began his mopping-up process, the Puget Sound area had about 150 houses of prostitution sheltering from 1000 to 1500 inmates. He first gave attention to the nearby city of Tacoma, which had a population of 109,000 and 35 open houses. "We had favorable conditions for fighting in Tacoma," said Colonel Clark, giving me the history of his struggles. "We had to wait a while for the change of administration, but then we got a good mayor who was reelected with a landslide and a good commissioner of safety. Tacoma was cleaned up -- and I mean cleaned up," added the Colonel with emphasis. "We did it chiefly by educating the people."

Colonel Clark is convinced that the battle against segregated districts of prostitution can never be won without the backing of an enlightened public opinion.

The cleaning up of Tacoma by the Army and the city officials, backed by public opinion, was a permanent job. It is still cleaned up, but the mopping-up process there in Bremerton, where the Navy Yard is situated, and in other surrounding cities, only aggravated the problem.

"A little later, war came and more troops," Colonel Clark continued his narrative. "We had a change of administration in Seattle, too, and in Mr. Devin that city now has a fine mayor. The houses of prostitution were officially closed in September, 1941. The results showed at once in a decrease of Army infections. But things became critical again last

(over)

July. We held meetings to ask whether Chief of Police Kimsey was going to town. We kept plugging away. Our relationship with Mayor Devin has been very satisfactory. We have been patient and tactful. But this was something that had to be done. Mayor Devin was behind us always, but to put behind this kind of a campaign what has to be behind it the chief of police and his staff have to be absolutely honest. Seattle had about 50 open houses when we started in. Now an occasional house opens again surreptitiously until it is discovered. Wherever you have prostitution you have a lack of enforcement. As far as the Army is concerned we have had excellent results. Whereas we had 150 new cases under treatment in January, 1941, today we have 62 and we have four times as many troops at Fort Lewis as we had then."

In the final analysis this reduction in cases resulted in an enormous saving in training time for our commands, a total of almost 100,000 man-days. In addition, this work has saved costs of material, personnel and services amounting to $550,000, not to mention the saving of construction of hospital shelter for the cases we might have had instead of the 62 that are under treatment. This does not count the intangible saving in the lives of these young men and in the contribution they can make to the fighting forces."

Although the Army's Fort Lewis record is superb, the problem for the Navy is more difficult. It has recently assigned two additional venereal disease control men to Seattle because the percentage of cases for the whole Thirteenth Naval Area that were traced back to Seattle was alarmingly high. As a result of its recent accelerated campaign, its educational work, lectures and showing of the Naval film, "Sex Hygiene," the Navy figures dropped in February by about 50%, but the number of its cases is still higher than that of Fort Lewis.

What complicated Seattle's problem during the last year is a manifestation that has occurred all over the country. The sudden increase of venereal disease cases was traced to the "amateur" as she is called in some cities, or the "pick-up girl," as the type is described in Seattle. These girls operate in the taverns and dance halls. Some of them are out-and-out prostitutes, but police officials in various cities have told me that many of them are girls with a curiously perverted sense of patriotism who would not think of having sex relations with a civilian, but feel they are doing something for their country when they enter into such relationships with members of the armed service. Most of them scorn to accept money.

Abstract of and Excerpts from Lecture on

VENEREAL DISEASE CONTROL IN INDUSTRY

by

Surgeon Otis L. Anderson, U. S. P. H. S.

Industry in the United States involves a potential labor force of some 53,000,000; 40,000,000 men and 13,000,000 women, 14 years of age or older. This represents more than 40% of the population of the entire country. The health of these 53,000,000 persons is essential for the same reason that health in the armed forces is essential.

It has been estimated, by combining the results of serologic tests among selectees and volunteers with surveys of syphilis patients under treatment in representative areas, that there are about 3,200,000 persons with syphilis in the United States. Inasmuch as workers in industry comprise more than 40% of the entire population, it is appropriate to apply this per cent to the estimated 3,200,000 persons with syphilis resulting in an estimated prevalence of syphilis among workers in industry of 1,280,000.

Industry is confronted with the responsiblity of finding a sufficient number of employables after the armed forces have removed a large number from the ranks of labor who represent the pick of American manpower. That means that industry must be seriously concerned with the treatment of as many persons infected with a venereal disease as can be rendered noninfectious and fit for service. In addition, the control of venereal diseases represents savings in time and money as well as increased efficiency to the employer. Control measures are equally important to labor in order that workers may earn more, may live longer, and may live more comfortably.

In order to assemble authoritative opinion, the Surgeon General appointed an Advisory Committee to the Public Health Service on the control of venereal diseases in industry. On August 10, 1942, this committee submitted its report and recommendations. A few of the more important observations reported upon by the committee are further discussed.

In its broadest outlines, a venereal disease control program in industry involves cooperation between four groups: (a) The employer; (b) the employee, (c) the medical profession; and (d) State and local health departments.

Responsibility for the administration of the program should be shared by the industrial hygiene and venereal disease divisions of the State Health Department. Of fundamental importance to the program is the development of equitable employment policies.

A well-planned educational program should precede the inauguration of venereal disease control measures. Employers must understand and agree with the objectives and policies of the control program. Employees must be taught the nature of the infection and the necessity for prompt and adequate treatment.

It is of utmost importance to the success of the venereal disease control program that the results of the medical examination be considered confidential between the worker and the medical staff.

(over)

A program of venereal disease control in industry utilizing proper medical management would accomplish the following: 1. Prevent the spread of venereal diseases through early and adequate treatment; 2. Prevent the development of late disabling manifestations by arresting progress of the disease; 3. Assure adequate treatment by requiring that the infected employee produce satisfactory evidence that he is under proper medical management; 4. Bring contacts of infectious workers under medical observation.

Abstract of and Excerpts from Lecture on

TUBERCULOSIS CONTROL IN ACTION DURING WARTIME

by

P. A. Surgeon Herman E. Hilleboe

U. S. Public Health Service

Certain aspects of the tuberculosis problem need to be emphasized, particularly in this critical wartime period, since it is necessary that manpower, both military and civilian, be safeguarded.

Upward trends in mortality rates have already been experienced in England in this present war. Tuberculosis death rates increased greatly in the last World War, and the massing of crowded war industrial workers in new areas presents a specific public health problem.

No single agency, official or voluntary, is rich or powerful enough to control the disease alone. It is an excellent opportunity for official and voluntary agencies to sit down together and work out details of joint programs.

A balanced program includes these fundamental principles of public health practice:

1. Find tuberculosis early
2. Provide isolation and treatment through sanitarium and medical care
3. Promote aftercare and rehabilitation
4. Support research in new methods of control
5. Employ all useful methods of public health education

Three governmental agencies closely related to the military forces and civilian war workers have effective programs underway to detect and endeavor to provide treatment for tuberculosis cases. They are (1) the Medical Corps of the armed forces; (2) the Selective Service System; (3) the U. S. Public Health Service. X-ray examinations are made routinely by these three groups.

In industrial establishments with civilian war workers, the U. S. Public Health Service can send portable 35 mm. fluorographic units to the industrial plants to prevent spread of tuberculosis in key industries.

The problem of providing facilities for care is a major one as States now have inadequate resources. Families concentrated in war areas and cantonment centers must be given particular attention because of the crowded and unhygienic conditions under which they are forced to live.

. . .

The principle contribution to be made by a voluntary agency for which the official agency rarely has any funds is public health education. Only in this way can people understand the problem and how it affects their homes and know the seriousness of the threat of tuberculosis. Here in the crowded and poor housing conditions frequently found in towns where new industries have sprung is a real chance for the voluntary agency to arouse the public. Here is the place where State and city health departments can utilize health and sanitation activities.

(over)

Even if no sanitarium facilities are available for care, outpatient supervision can be maintained, which if far superior to no care at all.

Official agencies are servants of the people and work under specific health laws. Voluntary agencies are employed by citizen groups as a medium of doing things not provided for by laws.

The best results in tuberculosis control are gained when voluntary and public agencies work cooperatively, each recognizing the particular responsibilities and limitations of the other.

Abstract of and Excerpts from Lecture on

NUTRITION IN PUBLIC HEALTH

by

Surgeon W. H. Sebrell, National Institute of Health

Nutrition as a national health program is only in the pioneer stage. We are just starting to realize its importance in the public health field. It is about where our sanitation program was in 1900.

"It is a peculiar thing but we always think it is the other fellow who has the deficiency disease." Nutrition should be recognized as a means for promoting health, and in the future it is likely to become an integral part of all health departments.

Nutrition programs are now being carried out in each State under State Nutrition Committees, in fact nearly every county in America has its Nutrition Committee in connection with the local defense council.

The war has dramatized the importance of nutrition to us. In England rationing programs have been in operation since the early days of the war, and you may think it strange but the population there is now betted fed than ever before. A point rationing program irons out inequalities. It really puts into operation a new currency and everyone - rich and poor alike - gets a share of available food. The vitamins needed by man are: (1) Thiamin; (2) Riboflavin; (3) Nicotinic acid; (4) Vitamin C; (5) Vitamin D; (6) Vitamin A.

Riboflavin deficiency is perhaps one of the most common deficiencies in the United States. Iron deficiencies are found frequently along the Eastern Coast because the soils are deficient in iron.

Pellagra deaths in the United States have ranged from 2000 to 4000 yearly, and these are needless, caused by lack of nicotinic acid. There are probably 200,000 cases of pellagra annually in the United States.

I am anxious that you understand that I am not urging the widespread use of "Vitamin pills" to make up these deficiencies in the diet. Vitamins should be obtained from normal food sources except in the treatment of disease or under unusual circumstances.

Our national program organized under the Federal Security Agency and carried on in close cooperation with the Department of Agriculture lays its chief emphasis upon an adequate diet. Proper foods will accomplish this object, and it is only necessary to take vitamin pills under a physician's prescription for specific purposes and then heavy doses are prescribed.

Let me briefly summarize the seven food groups in an adequate daily diet. It is essential that a person obtain some of each of these food groups daily.

(1) Milk or milk products
(2) Meat, poultry, fish or eggs
(3) Bread, flour or cereals, whole grain, enriched or restored
(4) Oranges, tomatoes or grapefruit, raw cabbage or salad greens
(5) Green and yellow vegetables

(6) Potatoes and other vegetables and fruits
(7) Butter and fortified margarine (with added vitamin A)

You will be interested to know that the Government is receiving the whole-hearted cooperation of the baking industry and the necessary amounts of thiamin and riboflavin will be available in all white breads by April 20, 1943, through the enriched flour national program.

The rationing program in America has been established with a full knowledge of British experience and though it may become more monotonous it is quite likely that everyone in America will be able to get an adequate diet, thanks to the rationing system. As a nation we are likely to become a better nourished nation than ever before. We shall become acquainted with new foods, eat less meat, more milk and fruits and vegetables, and our public health, as a nation, should improve.

Abstract of and Excerpts from Lecture on

NURSING IN WARTIME

by

Miss Pearl McIver, Principal Nursing Consultant

States Relations Division, U.S.P.H.S.

Nursing Needs

Nurses are the largest single group of professional workers in the health field. The shortage in the supply of professional nurses is even more acute than the shortages of physicians, dentists or engineers. The Army needs 6 nurses for every 1000 men. An army of 10,000,000 means 60,000 nurses in the Army Nurse Corps. The Navy needs only 3 nurses per 1000 men because corps men are used for nursing duties aboard all battleships. To meet both military and civilian needs it is estimated that 100,000 additional nurses will be needed by the close of the next fiscal year, June 30, 1944.

Proposed Ways to Meet These Needs

1. Every inactive nurse who is capable of full or part-time work is urged to return to nursing work.
2. The admission of students to schools of nursing must be rapidly increased. It is estimated that at least 65,000 new students must be admitted during the fiscal year 1944.
3. Agencies employing nurses must analyze their programs and decide what functions now being performed by nurses could be delegated to other types of workers. Volunteers and paid nursing auxiliaries should be used for non-nursing functions.

Nursing Organization for War Service

1. National Nursing Council for War Service

This Council, organized in July 1940, is made up of representatives of the five national organizations (A.N.A.; N.O.P.H.N.; N.L.N.E.; A.C.S.N.; and N.A.C.G.N.), and the Nursing Director of the American Red Cross. The chiefs of government nursing services are exofficio members of the Council. The objectives of this Council are to: (a) coordinate the wartime programs of all professional nursing organizations; (b) stimulate leadership and cooperation of nursing groups on State and local levels; (c) prepare plans and standards for meeting the war nursing needs, and (d) give professional guidance and support to governmental efforts that are proposed to assist in meeting nursing needs.

2. Subcommittee on Nursing, Health and Medical Committee, of Civilian Defense and Welfare

Soon after the organization of the Nursing Council, the Health and Medical Committee appointed a Subcommittee on Nursing. This Committee will do through government channels what the National Nursing Council for War Service does through professional channels.

The five members of the Subcommittee on Nursing are all members of the National Nursing Council for War Service. Thus, there is the closest cooperation between the governmental and nonofficial, or professional organizations which are concerned with war nursing.

3. American Red Cross

By Act of Congress, the American Red Cross Nursing Service acts as the nurse recruitment agency for the Army and Navy. Other activities of the Red Cross, which have a direct bearing on war nursing, are classes in Home Nursing,

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First Aid and for Volunteer Nurses' Aides.

4. Field Nursing Consultants

The field consultant nurses of the Public Health Service, Children's Bureau and the Red Cross have served as field interpreters of all war programs. However, heavy emergency needs may necessitate the appointment of special consultants for the war nursing programs.

National Inventory of Registered Nurses

One of the first steps in putting the objectives of the war nursing program into effect was to take an inventory of all our available resources. In October, 1940, at the request of the National Nursing Council for War Service, the Public Health Service undertook this survey. Almost 300,000 registered nurses returned their questionnaires. The inventory was especially useful in locating inactive nurses and in finding nurses who qualified for the War Nursing Reserve of the American Red Cross. Because nurses move from one place to another so rapidly, it became necessary to conduct a resurvey this spring in order to have a current picture of nursing resources. Consequently, a brief questionnaire on a double postcard was prepared and a resurvey is just being completed.

"Training for Nurses (national defense)" Act

This program is an excellent example of the results of the coordinated efforts of all war nursing groups. The National Nursing Council, through its Committee on Educational Resources, proposed the original plan. The Subcommittee on Nursing endorsed the recommendations and submitted the proposal to the Health and Medical Committee, which in turn referred it to the Federal Security Agency for the necessary legislation. The Congress then appropriated $1,200,000 for preparing more nurses and placed the administration of the funds in the Public Health Service. Three types of programs were authorized, including (1) refresher courses for inactive nurses; (2) basic courses for undergraduate or student nurses, and (3) postgraduate courses in special fields for graduate nurses.

The goals set by the Public Health Service with the available appropriations have been reached. However, it is believed that a similar appropriation next year will not meet the needs because of the competition for womenpower. Therefore, the nursing and hospital administration groups have proposed a plan for the establishment of a Student War Nursing Reserve. Bills authorizing an appropriation for this plan are pending in both the Senate and the House. The plan permits the voluntary enlistment of any student nurse who is enrolled in a school of nursing which meets the requirements outlined in the Regulations of the Surgeon General "Training for Nurses (national defense)" and provides free tuition, entrance fees, subsistence, uniform and insignia denoting the student's rank in the corps. The plan also provides a modest stipend for personal expenses and requires the participating school to condense the required courses to 24 or 30 months. Where State laws do not permit graduation at the end of 24 to 30 months the student will become a "cadet nurse" for the remainder of the required 30 month period and may be assigned by her own school to military, other governmental or civilian hospitals for experience under supervision.

Supply and Distribution of Nurses

Recently a nursing unit under the War Manpower Commission (similar to the Procurement and Assignment Division for physicians, dentists and veterinarians) has been authorized and a nurse director has been appointed. The tentative plans for this unit include suggestions to utilize the State Nursing Councils for War Service in a manner similar to the use of State medical societies by the Procurement and Assignment Division.

Abstract of and Excerpts from Lecture on

INDUSTRIAL HYGIENE ADMINISTRATION

by

Sanitary Engineer J. J. Bloomfield, U.S.P.H.S.
National Institute of Health

The Division of Industrial Hygiene operates in the National Institute of Health where research work of a nature vital to war activities - in aviation, in ordnance plants, in airplane factories is being carried on.

The Division at the Institute serves in three general ways to carry on industrial hygiene work:

(1) Laboratory research in our own building with staff expert in their field.
(2) Field research - with industry.
(3) Technical and consultation services to states and industry.

The importance of industrial hygiene has long been recognized by large industries, which have developed trained medical and nursing staffs to prevent disease, and prevent lost time from illness among the workers.

Few people realize the tremendous losses of manpower in the industrial field through accidents and illness. We have 56 million workers in the United States today. Last year, in our military operations we lost from 11 to 15 thousand men. 18,500 were killed in industry. We lost 42 million man days from accidents, which corresponds to a 2 month shut down of all shipyards and airplane plants. Our manpower situation is critical and we must prevent this loss of valuable time, by recognizing the importance of industrial hygiene, and getting the principles into operation in all our war industries and among our workers.

Now, under the stress of war, all industrial workers become important and the Public Health Service is working to install or expand the trained staff in State health departments. Legal protection of workers is a responsibility of state and local governments. In the past four years there has been a rapid growth in the establishment of industrial hygiene divisions in State health departments.

Most state units employ at least, a physician, an engineer, a chemist and a secretary, who stimulate the work of sanitation and disease prevention among those gainfully employed in the State. Attention should be given to occupational diseases for there are definite relationships between - say a dusty environment and disease which can be easily demonstrated. Then corrective measures can be taken and a financial saving to the industry shown. After this has been done in one specific field, it can be expanded into the fields of personal hygiene, and environmental sanitation.

The benefits of industrial hygiene may be broadly divided into two parts, the intangible and the tangible. The former includes improved industrial and public relations and the humanitarian aspects, while the latter gives benefits in improved health, corresponding efficiency. Cash benefits are lowered taxes, due to relief expenditures and lowered compensation carrying costs.

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One specific instance of financial benefits may be cited. In 1920, in a lead smelter of a certain industry, there were 64 lead poisoning cases among 400 employees. By an industrial hygiene program, these were eliminated so that in the last ten years not a single case has appeared. Frequency and severity of accients were lowered, with a saving of compensation costs of $40,000 per year.

The greatest losses to industry do not come from occupational disease, or from accidents, but from preventable diseases which can be lessened by a broad public health approach, in which every phase of work, normally done by active local health departments has a place. It includes venereal disease control, tuberculosis control, cancer, heart disease, dental hygiene, nutrition, mental hygiene and all the services carried on by the sanitary engineer. Water and milk supply, waste disposal and general food sanitation play a part.

The strengthening of general public health services in the community is an essential part of the industrial hygiene program.

It is this total approach which we are attempting to encourage-through research, by demonstration, by education-so that the 56 million workers in industry may benefit from sound practice of public health activities.

Abstract of and Excerpts from Lecture on

MALARIA -- GENERAL ASPECTS

by

Dr. L. L. Williams and Dr. Trawick Stubbs,
Malaria Control in War Areas, Atlanta, Ga.

Malaria is a term applied to a group of diseases caused by certain organisms known as the malaria parasites. These diseases are characterized by regular recurrence of fever at definite intervals of 24, 48, and 72 hours.

Malaria is carried by mosquitoes but not all mosquitoes. There are approximately 1500 species of mosquitoes, which are separated into two groups - malaria carrying and all others. The malaria mosquito is the Anopheles. The female Anopheles Quadrimaculatus is the common eastern U. S. malaria carrying mosquito. It has four black spots on the wings. All Anopheles have body and beak and thorax in the same straight line as they roost. Only certain anopheline species can be infected; of those that carry malaria in the laboratory, only a few are important vectors in nature. There are nine known Anopheles in the United States. The mosquitoes find the bedroom an excellent place to eat a meal. During daylight hours the Anopheles Quadrimaculatus doesn't usually bite. She is active from dusk to dawn frequently feeding on people as they sleep.

In this country much malaria is man-made. Man's efforts usually dam up streams, make pits along the highways, and make railway fills. Left normally alone we would have very little malaria in this country. In the case of hydro electric plants when a freely flowing stream is dammed up the trees start to die, sunlight comes in, vegetation gathers, and quadrimaculatus takes over the place. It is only necessary for a person with the malaria parasite in his blood to come into this area, and be bitten, for the whole cycle of malaria to start functioning.

The T. V. A. have demonstrated that if malaria is man-made, it can be man-controlled. They have an outstanding malaria control program in operation in which the public health officer, the nurse, the engineer, the entomologist cooperate to get results. Remember in all your plans for control of mosquitoes that the flight range of the Anopheles Quadrimaculatus, the malaria mosquito, is about one mile. It roosts in dark places near habitations and bites always at night. It feeds principally upon human beings, preferring to catch them while they are asleep. We take advantage of this habit and screen the home as a protection against malaria.

Malaria parasites are minute protozoa, which require two hosts, man and the anopheline mosquito. In man, the parasites live in the red blood cells where they multiply asexually. To complete the development of the life cycle of the parasite in the ANOPHELES mosquito, (sexual process) takes from 8 to 14 days.

If public health officers can successfully break this chain of development, this cycle of man-parasite-mosquito, man then can control malaria. Some of the engineering principles involved will be discussed by the public health engineers.

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The economic cost of malaria in the United States is great. In the amount of sickness and suffering, the loss of time and efficiency, the expense, the lowered vitality of those afflicted and in the reduction of valuation of property, malaria is without a rival among the diseases affecting man.

As the tropics are approached, the control of malaria becomes often a labor problem of the first importance. For centuries it has continued to hinder the progress of semi-tropical and tropical countries.

In the United States, after a long experience with many mill owners and industrialists, the figure which I have arrived at, and which satisfies me is that with two malaria infections a year, in the sixteen southeastern States alone, it costs the United States $500,000,000 a year to have malaria.

Definite and substantial financial losses have been found in industrial plants operating in localities of high malaria incidence. The managers of the cotton mills at Roanoke Rapids, North Carolina, reported a loss of efficiency of 40 to 60 per cent among the employees during the four malaria months.

The Tennessee Valley Authority has organized and placed into operation a very successful plan to control malaria in the areas where water has been impounded in large lakes back of the power and navigation dams over the Tennessee watershed.

To control the transmission of mosquito-borne diseases, we attack the mosquito at its most vulnerable point, in its larval stage in the water. Whenever possible we drain to eliminate the breeding places. If this is not possible we use larvacides. The anopheles larva feeds on minute green algae so we dust the surface of the water with Paris green, as its tiny green particles closely resemble the algae. The larvae devour it and die at once. Paris green may be put out by hand duster, a power blower or from an airplane. To control the production of larvae, which feed below the surface, we spray a toxic oil on the water. As it gets into their breathing tubes it paralyzes and kills them. The cost of malaria control is not excessive, and any community which desires may rid itself of mosquitos.

Abstract of and Excerpts from Lecture on

FEDERAL HOUSING

by

M. Allen Pond, P. A. Sanitary Engineer (R)

National Institute of Health

On February 24, 1942, President Roosevelt, by executive order, created the National Housing Agency, bringing within its administrative framework 16 separate departments of the Federal Government that had been concerned with various aspects of housing. N.H.A. is subdivided into the following branches whose principal functions are noted: (1) Federal Public Housing Authority (development, construction, and operation of public housing projects); (2) Federal Housing Administration (guaranteeing mortgages for new construction by private enterprise);and (3) Federal Home Loan Bank Administration (loaning money to owners for rehabilitation, repairs, and replacements to private property).

N.H.A. and F.P.H.A. have decentralized organizations with regional offices in ten cities (Boston, New York, Washington, Cleveland, Chicago, Atlanta, Fort Worth, Kansas City, San Francisco, and Seattle).

F.P.H.A. is responsible for the development of a large part of the war housing program, and, as of February 28, 1943, had assigned 393,237 dwelling units for construction. Of these, 121,820 or 31% were already occupied, and 205,065 or 52% were under contract. As of the same date a total of 603,377 dwelling units had been assigned for development by all public agencies (including slum-clearance and defense housing projects built before the war by the Federal Works Agency). The total cost of the entire public housing program to February 28, 1943, had been $1,816,116,000.

The Public Health Service was asked soon after F.P.H.A. had been organized to detail personnel to serve as liaison officers between the two agencies. At present three Service representatives are on detail full-time to F.P.H.A. The Public Health Service has also been asked to operate infirmaries built in conjunction with F.P.H.A. dormitory projects. All district directors are consultants to one or more regional directors of the Authority.

Consultative services are furnished F.P.H.A. regional and local representatives on a wide variety of health problems associated with public housing: water supply, sewage disposal, site selection, and other aspects of environmental sanitation, medical, dental, and nursing services, health education, and nutrition. In order to extend the sanitary engineering services of the Public Health Service to F.P.H.A., the Commissioner of the latter, Mr. Herbert Emmerich, has recently requested the Surgeon General to detail a sanitary engineer liaison officer to work in each regional office of F.P.H.A.

The health program of F.P.H.A. has been developed about the local health department. If local services are not available, housing managers are referred to State health officers. Only regional directors of F.P.H.A. have the authority to call upon the Public Health Service for assistance. The only direct services that the Public Health Service offers F.P.H.A. at the local level concern the operation of infirmaries.

Abstract of and Excerpts from Lecture on

DENTAL HYGIENE

by

Walter J. Pelton, Dental Surgeon, U.S.P.H.S.

Our program is fostered by the State Relations Division and we seek to set up dental programs in State health departments so that the principles and practices which will prevent loss of teeth in all age groups may be understood.

State health departments use different methods for carrying on the dental programs. Sometimes central clinics, trailers or private practitioner's offices are utilized, depending upon local circumstances. The best and most successful work is carried on where active financial support of the local community is given for the services. Under such a plan, the State dental director coordinates and supervises all dental programs in the State.

Dental examinations by themselves are not regarded as a dental program but an original examination may be justified to demonstrate the need and start a program. The remedial program is the important thing to keep in mind, and educational material emphasizing the diet, tooth brushing, etc. are supplemental to the job to controlling dental caries by early and regular attention by a dentist.

In some States, for instance North Carolina, it is standard practice to include a dentist as one of the five persons in the local health unit in order to demonstrate the principles widely throughout the State and thereby more quickly let the truth become known about dental health.

"The school is not in the business of the practice of medicine, nor is it a public health agency. The school is obligated to teach facts. The facts in dental health about which there can be no doubt are few. Beyond a few truisms one becomes involved with theories and attitudes rather than facts.

"(1) One may teach that home care of the teeth is desirable, but it cannot be relied upon to prevent decay. Brushing the teeth should be encouraged to the same extent and for about the same reasons that washing the hands and combing the hair are encouraged. One must admit that clean teeth do decay and that persons who use tooth brushes should not be assured of sound teeth. There is good evidence, nevertheless, that a tooth brush will help prevent and control certain diseases of the gums.

"(2) One may say that foods necessary for good growth and development of the whole child are believed to be beneficial for the teeth. One may suggest that the refined carbohydrates in anyone's diet should be reduced to a minimum and that candy should be eliminated. Evidence may be presented that decay can be markedly arrested through the restriction of simple sugars in diets which are either adequate or inadequate from a

nutritional standpoint. The school lunchroom should be scanned to eliminate the health-cheating foods such as chocolate milk (which has had water and sugar added and the cream removed). Nuts, raisins, and popcorn may be suggested as good substitutes for desserts in which carbohydrates predominate. While college freshmen have improved in height, weight, and most other physical conditions during the past 10 years, their teeth have shown a marked deterioration.

"(3) One may cite scientists to the effect that proper prenatal attention is of paramount importance for the development of both mother and infant, but it is doubtful whether it can in any way alter the tooth structure of the offspring.

"(4) One may exhibit recent, developed calcification charts which indicate that the permanent teeth do not form until after the child is born. They will show you that the crowns of the permanent teeth are usually completely formed by 3 years of age (exclusive of the 3rd molars). They provide the basis for the attitude that once teeth have erupted they have just as good or just as bad a structure as they are going to have for the rest of their life.

"(5) The most important health habit which can be acquired by an individual is early and frequent dental care. After all, the only effective means of combating the ultimate result of dental caries is to remove all the carious material and reconstruct the tooth in such a way as to minimize the possibility of recurrence. Studies of large groups show that the more filling there are, the fewer are the extractions. A recent study of dental conditions of drafted men reveals that in childhood the rejectable men had certain characteristics differentiating them from the acceptable men. Those who had been rejected had a higher caries experience but a smaller number of teeth filled; hence a larger number of teeth lost.

"(6) Irregularities of the teeth, it may be stated, are likely to result from sucking fingers and similar mouth habits.

"(7) One may also call attention to advertisements which influence readers to believe that if they will only use a certain dentifrice, they need have no further concern about their teeth.

"(8) Finally, one may suggest that children be led to think of the dentist as a friend, not as a man to be feared.

"A dental program is not complete unless some provision is made for dental corrections or the problem-solving part of dental health education. If the schools were conducting dental-care programs, the solution would be simple. Since the schools lack the authority to engage in corrective programs, it seems, then, that their task becomes one of influencing their charges to seek dental care."

Abstract of and Excerpts from Lecture on

REGULATIONS - SICK AND ANNUAL LEAVE

by

Lester J. Marier, U. S. Public Health Service

Commissioned officers of the Public Health Service on active duty are allowed one month's leave of absence per year at the rate of 2½ days per month. Unused leave may be allowed to accumulate up to a total of four months. Commissioned officers are charged with leave for every day [illegible]. Applications for leave shall be in the form of a letter and shall be addressed to the Surgeon General and forwarded through the superior of the officer concerned.

A request for leave should state the number of days desired and the effective date of such leave. The officer in charge of a station may grant leaves of absence for periods not to exceed seven days. Leaves of absence in excess of seven days must be approved by the Surgeon General. In case of emergency or when time will not permit the usual procedure in requesting leave, requests may be made by telegraph at the expense of the officer requesting leave. Should reply by telegraph be also necessary, it will likewise be at the expense of the officer. An officer granted a leave of absence is required to report to the Surgeon General the probable date of his return and should advise of his address while on leave and should also report changes therein. An officer who has received orders transferring him to a new station and desiring to travel by any method or over any route other than that generally accepted as the most expeditious should make written request in advance for leave to cover any excess travel time necessary. Such leave may be granted only by the Surgeon General.

Copies of requests for leave and statements of all leave granted must be attached to the officer's pay voucher for the month in which the leave was taken.

SICK LEAVE

Commissioned officers are granted sick leave whenever they are unable to perform their duties on account of sickness or injury. Sick leave cannot be granted in advance. All sick leave must be approved by the Surgeon General. The procedure to be followed in regard to sick leave is as follows: When an officer is unable to perform his duties on account of sickness or injury he shall immediately advise his superior officer, stating the probable length of time he will be incapacitated. Upon return to duty he shall submit to the Surgeon General through his superior officer a request for sick leave covering his absence together with a medical certificate. A medical certificate must be furnished with every request for sick leave regardless of the length of the absence. If it is impossible to secure a certificate from a medical officer of the Service or some other physician, or if no physician was in attendance, the officer requesting leave may substitute his own affidavit as to his condition.

If the disability or sickness extends beyond the last day of the month the officer shall make request for leave on the first day of each succeeding month in order that it may be approved and copies of the leave may be attached to the officer's pay voucher.

Abstract of and Excerpts from Lecture on

INSTRUCTIONS TO COMMISSIONED OFFICERS ON TRAVEL

by

Mr. Edward Ardésser - U.S.P.H.S.

Travel performed in accordance with official travel authorizations received by the employee must always be made by the most economical means available and care should be exercised in incurring expenses as the Government cannot reimburse travellers for any excess costs but only those expenses essential to the transacting of official business.

Authority to travel is the first requisite of the employee and his transportation will include all necessary official travel on railroads, airlines, steamboats, street cars, and other usual means of conveyances. See paragraph 8 of S.G.T.R. Civilian employees are also entitled to a per diem allowance in lieu of subsistence, which allowance includes all charges for meals, lodgings, tips, etc. See paragraph 44 of S.G.T.R. Commissioned officers do not receive a per diem allowance.

Travellers, both commissioned and civilian, should make application for books of transportation requests which should be used when possible for all transportation accommodations including railroad, bus, air, steamship, and pullman (except in case of commissioned officers) accommodations where the amount is in excess of one dollar. See paragraphs 17 to 21 of S.G.T.R. No travel expenses are allowed any employees while at their official station or designated post of duty.

Commissioned Officers

In accordance with law, commissioned officers receive a mileage allowance at the rate of eight cents a mile, the distances to be computed by the shortest usually travelled route. They should use transportation requests for rail (not pullman), bus, or water transportation. A deduction of three cents a mile is made when such transportation requests are used and the officer receives five cents a mile from which all expenses of traveller are to be paid including pullman accommodations, meals, lodgings, etc. If travel is performed in a privately owned auto for which no special authority is necessary, the officer receives the full mileage allowance of eight cents per mile.

Commissioned Officers' mileage voucher Form 1071 Revised and 1071-A Revised, should be prepared in accordance with the sample attached giving dates, places, and kind of transportation furnished as shown under "note." The voucher should be signed by the payee giving his full name and title and should be accompanied by two certified copies of his travel authorization together with any white copies of transportation requests used during the period involved and sent to the Surgeon General, U. S. Public Health Service. Computation of distances will be made after the voucher is received in the Transportation Section. Travel should be made to such places as are shown in the travel authorization. If by reason the exigencies of this Service require travel to points not listed in the travel authorization, the mileage voucher must be accompanied by a certificate signed by the traveller in accordance with the attached sample. When commissioned officers are assigned to duty that is only possible by movement within a certain district and such distances are inconsiderable and absence from the station or headquarters is during the ordinary business hours of the day, the payment of mileage is not authorized nor is the payment of subsistence authorized. He is entitled, however, to transportation only or reimbursement of the cost thereof.

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"The maintenance of cordial, cooperative relations with the other branches of the Government is a duty of all officers. When in a foreign country, an officer should establish cordial relationships with the diplomatic and consular officers of the United States. If at the Capitol he should call upon the U. S. Ambassador or Minister, and the adult members of their families, as well as upon the American Consul and his family.

"Strictly speaking the Public Health Service is not a military organization although a large number of its officers are on duty directly with the Army and Navy or in work closely associated with the military services. Service officers are commissioned by the President and constitute a uniformed commissioned corps whose organization and discipline are patterned along quasi military lines. Officers are directed to pay the proper courtesies to officers of all other uniformed services and to acknowledge salutes and other courtesies extended to them by other personnel in uniform."

Abstract of and Excerpts from Lecture on

NATIONAL OPPORTUNITIES FOR PUBLIC HEALTH PROGRESS

by

Dr. Abel Wolman, April 18, 1941

"My particular comments today, I might best describe as largely philosophical in nature .....

"In defense preparations and war time periods, the old, still accepted, clear-cut distinction between preventive and curative medicine disappears. Nobody is any longer interested in preserving the distinction, either in the military or in the civilian group. The object is to preserve health. It does not matter whether it falls into public health practice or private medicine. We will find during the next five or ten years, if our defense program continues, that we are little restrained by that distinction.

"Remember, what you accomplish rests on public understanding and acceptance. A successful code of hygienic life cannot be created out of a vacuum and applied like a poultice to the men and women of the United States. Doctor Parran described the public health situation in the country as exemplified by the draft, as a 'national disgrace'. For the first time in history, I believe, there is a realization on the part of all people that war and defense are truly total in nature. Now, the Army and Navy cannot be adequately prepared without the complete raising of the population to a high public health level.

"Nutrition is one of the most fruitful fields for future public health endeavor. Your job is not only an engineering job, a medical job and a nursing job. It is a true social service. The public was never so demanding as it is today of equality of social benefits for all the people. There has been a demand for the universalization of medical care. The Public Health Service has been the major crusader in a peaceful social revolution. Housing is the major challenge of the future.

"Sanitation, which I call the orthodox underpinning with respect to the health movement, is sometimes lost sight of because its foundation is concealed.

"Training and education are a primary part of your activity. I think I am correct in saying that the United States is the last large country left in the world where people are still taught to seek out the truth. It is still possible to teach year in and year out in our schools, what we consider to be the truth, in science, in history, in economics and in political science.

"You have one of the grandest opportunities of the decade to crystallize federal and State relations in public health administration. With somewhat more money and expansion of personnel, there are two things that are important in that particular relationship."

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"Strengthen that very fine federal-state relationship, which the Public Health Service has exemplified for over one-half a century. The Service type of relations with the States has been almost the only one upon which we, working in the National Resources Planning Agencies, have fallen back upon as an example of how to do the job right. I say to this new group, 'Don't let the Service down'. By that process, through which the Service operated, each person will feel that his local and his State's rights are recognized, supported and strengthened by the federal Public Health Service.

"The time has come to recognize that we have not democratized the benefits of public health. Here is a time to do it, under the stress, under the drama, and under the force of necessity."

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